



TURNER

ENVIRONMENTAL SM

7918 Wrenwood Blvd., Suite C • Baton Rouge, LA 70809 • 225-426-4300 • 225-426-4360 • www.teius.com

MAIN FILE

September 20, 2007

LDEQ RECEIPT

2007 SEP 20 AM 10:11

Louisiana Department of Environmental Quality
Office of Environmental Services
Waste Permits Division
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

original to IOSW

copy to SW/G3/Thomas

AVG

Attention: Mr. Bijan Sharafkhani, P.E.

PER20070001

Re: Transmittal
Solid Waste Standard Permit Modification Application No. 1-07
Final Copies
Permit No. P-0193R1; Facility ID D-101-0079; AI No. 9340 ✓
Harold J. "Babe" Landry Landfill
Berwick, St. Mary Parish, Louisiana

Dear Mr. Sharafkhani:

In accordance with LDEQ's "Request for Final Copies" letter dated August 20, 2007, Professional Engineering and Surveying Company, Inc. (PENSCO) and Turner Environmental, Inc. (TEI), on behalf of the St. Mary Parish Government and the Harold J. "Babe" Landry Landfill, hereby submit six (6) Final Copies of the subject permit modification application for review and approval by LDEQ. As requested, the attached modification application is comprised of the original Permit Modification No. 1-07 submittal with all changes included and accepted, including those from the Response to Notice of Deficiencies document (submitted July 23, 2007) and the Environmental Assessment Statement (submitted May 16, 2007). Please note that Part III, attached, includes the subject Environmental Assessment Statement and supporting exhibits.

For each modification, we have attached a detailed description and justification information, and, where applicable, revised permit application text. The revised permit application text is presented in "final format" (i.e., added text is included and deleted text is removed). Only portions of the permit application text with proposed modifications are submitted herewith and include: Part I (33:VII.519); Part II (33:VII.521); Part III (33:VII.523); Appendix B (Facility Operations Plan); Appendix D (Industrial Waste Acceptance Quality Assurance/Quality Control Plan); and Appendix H (Closure and Post-Closure Plan).

Thank you for your assistance in this matter. Should you have any questions or if we can be of assistance to you in any way, please do not hesitate to contact me at (225) 926-4300, extension 21.

Very truly yours,

TURNER ENVIRONMENTAL, INC.

Jonathan E. Fourrier
Jonathan E. Fourrier, P.E.
Project Engineer

JEF (Enclosures)

c: Mr. P.A. Hoppe, Jr., P.E.
Mr. Henry C. LaGrange

RECEIVED

SEP 20 2007

LDEQ

SOLID WASTE STANDARD PERMIT MODIFICATION APPLICATION

PERMIT MODIFICATION APPLICATION No. 1-07

FINAL COPIES

PERMIT No. P-0193R1

FACILITY ID No. D-101-0079

AGENCY INTEREST No. 9340

HAROLD J. "BABE" LANDRY LANDFILL

BERWICK, ST. MARY PARISH, LOUISIANA

Prepared For:

**ST. MARY PARISH GOVERNMENT
FRANKLIN, LOUISIANA**

Volume 1 of 1

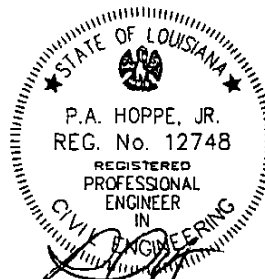
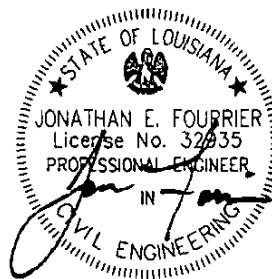
SEPTEMBER 2007

Prepared Jointly By:



**TURNER
ENVIRONMENTAL**

**TURNER ENVIRONMENTAL, INC.
Baton Rouge, Louisiana**



PENSCO

**PROFESSIONAL ENGINEERING
AND SURVEYING CO., INC.
Lafayette, Louisiana**

TABLE OF CONTENTS

PERMIT MODIFICATION APPLICATION No. 1-07

VOLUME 1 OF 1

INTRODUCTION

PART ISOLID WASTE STANDARD PERMIT APPLICATION FORM

PART I EXHIBITS

PART IISUPPLEMENTARY INFORMATION

PART IIIADDITIONAL SUPPLEMENTARY INFORMATION (INCLUDES RESPONSES TO REVISED EXPANDED "IT DECISION" QUESTIONS)

PART III EXHIBITS

FIGURES

APPENDICES

TABLE OF CONTENTS

LIST OF EXHIBITS

PART I EXHIBITS

- Exhibit 1 Lease Agreement and Buffer Zone Waiver Affidavit**
- Exhibit 2 Louisiana Pollutant Discharge Elimination System Permit**
- Exhibit 7 Proof of Legal Signatory Authority**
- Exhibit 8 Addendum to Permit Applications per LAC 33:I.1701**

PART III EXHIBITS

- Exhibit 19 Proof of Publication of Public Notice**
- Exhibit 20 Lease Agreement and Buffer Zone Waiver Affidavit**
- Exhibit 21 Excerpt from Solid Waste Management Study**
- Exhibit 22 St. Mary Parish Solid Waste Ordinances**
- Exhibit 23 Airspace and Borrow Soil Adequacy Volume Calculations and GS-GCL & GCL Equivalency Calculations**
- Exhibit 24 Emergency Response Certification Letters**
- Exhibit 25 St. Mary Parish Solid Waste Resolution**
- Exhibit 26 LDOTD and St. Mary Parish Letter of Approbation (Roads)**
- Exhibit 27 Example of Document to be Filed with Parish Upon Closure**
- Exhibit 28 Alternative Site Evaluation Map**
- Exhibit 29 USACE Wetlands Demonstrations (1976 & 1998) & Wetlands Jurisdictional Determination (2001)**
- Exhibit 30 USACE Wetlands Permit**
- Exhibit 31 LDWF Letter of Approbation**
- Exhibit 32 LDCRT Letter of Approbation**
- Exhibit 33 LDNR Coastal Use Permit Exemption**
- Exhibit 34 Flood Zone Map**
- Exhibit 35 Aquifer Recharge Area Map**
- Exhibit 36 LRRDA Letter of Approbation**

TABLE OF CONTENTS

LIST OF FIGURES

Figure 7 Master Site Improvements Plan

LIST OF APPENDICES

Appendices BFacility Operations Plan

Appendix DIndustrial Waste Acceptance Quality Assurance/Quality
Control Plan

Appendix HClosure and Post-Closure Plan

INTRODUCTION

<html><head><title>Object moved</title></head><body>
<h2>Object moved to here. </h2>
</body></html>

INTRODUCTION

2.0 HISTORY OF SOLID WASTE PERMIT P-0193R1

Construction of the facility was completed in 1979 and operation began in January, 1980. The initial construction generally consisted of shredding and administrative facilities, a computerized truck scale, and a sanitary landfill. The general sequence of landfilling was Cell 1, Cell 2, then Cell 3 from east to west. Prior to depositing waste in Cells 1 and 2, a leachate collection system was installed in the interior borrow canals in those cells. Prior to depositing waste in Cell 3, a leachate collection system was installed in trenches constructed in the bottom of the cell. At present, Cells 1 and 2 are closed and officially past the post-closure care period and Cells 3 (Type II), 3A (Type III), and 4 (Type I/II) are the active areas. The shredding facility has been out of operation since March 1987, when Parish officials decided to cease operation of the facility.

The original permit application for Cell 3 was submitted in May 1988 and modified in November 1990 to add alternate "daily cover" materials and to expand the landfill vertically. On two separate occasions, in 1997 and 1999, LDEQ approved requests for vertical expansions based on an alternate liner exemption and an extension of that exemption, respectively, in order to fully utilize the capacity of the site. The Closure Plan was modified in April 1998, bringing the Closure and Post-Closure plans for the facility into compliance with current Louisiana Environmental Regulatory Code 33:VII. A permit modification application was approved by the LDEQ for the addition of another alternate daily cover material and to address changes in the Groundwater Monitoring Plan. The permit modification was submitted in August 1999, and was approved by the LDEQ in November 1999.

A permit renewal application was submitted to LDEQ on June 18, 2002; in addition to renewing the permit for Cell 3, the permit renewal application proposed a westward horizontal expansion of the facility through construction of Cell 4. Since the existing permit only allowed for disposal of Type II waste in Cell 3, and Type III waste in Cell 3A, it was proposed that Cell 4 be classified as both a Type I and Type II cell. LDEQ approved the permit renewal application and associated modifications with the issuance of Permit P-0193R1 on October 4, 2002. This document will be referred to throughout as the 2002 Permit Application.

Construction of the eastern 1/2 of Cell 4 (Phase I) was initiated in September 2004 and major construction activities were completed in July 2006. A certification report was submitted to LDEQ for Cell 4 – Phase I on July 28, 2006, and a construction approval letter was issued to St. Mary Parish on August 15, 2006. The Order Authorizing Commencement of Operation was issued to St. Mary Parish on September 27, 2006. To date, waste has not been accepted into Cell 4.

INTRODUCTION

3.0 PROPOSED MODIFICATIONS

3.1 FORMAT OF PERMIT MODIFICATION APPLICATION

The proposed modifications to the permit are described in detail in the following Sections (3.2 through 3.5). The proposed modifications include:

- Extend permit expiration date to coincide with the ten-year anniversary of permit issue date;
- Provide for acceptance of regulated asbestos-containing material (RACM) waste into Type I/II Cell 4;
- Defer installation of electrified fence around the active areas of the landfill property; and
- Modification of Parish's procedures for temporarily extending facility operation hours to accommodate increased waste intake quantities from severe weather events.

Modifications to the 2002 Permit Application document are presented in the attached Solid Waste Standard Permit Modification Application. Where a modification to the 2002 Permit Application text is proposed, the following method of reference is used:

- Only sections of the 2002 Permit Application with text changes resulting from the proposed modifications are included herewith. Text that is added by the proposed modifications has been accepted into the document. Text that is eliminated by the proposed modifications has been removed from the document.
- Updated and/or revised supporting documents are provided in exhibits to Part I (LAC 33:VII.519) and replace those submitted with the 2002 Permit Application. The replacement documents are included in the Part I Exhibits section and are numbered the same as those presented in the 2002 Permit Application.
- The Environmental Assessment Statement (submitted May 16, 2007) is included as Part III (LAC 33:VII.523) of this permit modification application. Its supporting documents are included in the Part III Exhibits section and are numbered sequentially to agree with the Part II Exhibits presented in the 2002 Permit Application.
- A photocopy of Figure 7 from the 2002 Permit Application is included in the Figures section for LDEQ's reference.

3.2 EXTENSION OF PERMIT EXPIRATION DATE

When the 2002 Permit Application was submitted, leasing negotiations between the Parish and facility landowner were ongoing. Therefore, the permit application was submitted with the lease that was in effect at that time. The expiration date for the old lease was December 31, 2009. Even though the

INTRODUCTION

permit was issued on October 4, 2002, the permit expiration date was set to coincide with the lease termination date.

A new lease has since been obtained for the facility property with an expiration date of December 31, 2035. Part I has been modified to reflect the new lease termination date. The new lease is attached to Part I as Exhibit 1. Therefore, St. Mary Parish is requesting that the expiration date for its Permit No. P-0136R1 be extended to October 4, 2012, in accordance with LAC 33:VII.511.D.2.

3.3 PROVIDE FOR ACCEPTANCE OF RACM WASTE

The St. Mary Parish Landfill's Industrial Waste Acceptance Quality Assurance/Quality Control Plan (Appendix D) has been modified to provide for acceptance of Regulated Asbestos-containing Material (RACM), as defined under LAC 33:VII.5151 (Emission Standards for Asbestos). As detailed in Appendix D, RACM waste will only be accepted into Type I/II Cell 4. Deposition or storage of RACM waste in any other area of the facility will be strictly prohibited.

The requirements and conditions of LAC 33:III.5151.N (Standard for Active Waste Disposal Sites) and LAC 33:III.5151.K (Standard for Inactive Waste Disposal Sites) have been addressed by modifications to Appendix D and Appendix H (Closure and Post-closure Plan). In addition to LDEQ regulations, Occupational Safety and Health Administration (OSHA) requirements for personnel protection and employee training and notification have also been addressed and are presented in Appendix D.

3.4 DEFERRAL FOR ELECTRIC FENCE INSTALLATION

In the 2002 Permit Application St. Mary Parish volunteered to install an electric fence around the active areas of the landfill property to minimize the potential for impact on any Louisiana Black Bears. The Parish still intends to install the fence, but requests that the installation date be deferred until such time that it may become necessary due to foraging by bears. Over the twenty-seven year history of operations at the facility, there have been no documented sightings of bears or bear sign on the site by facility personnel. If bears or bear sign are detected near the active areas of the landfill, St. Mary Parish will immediately take steps to install the electrified fence as detailed in the permit application.

Filling of Cell 3 (Type II) is nearing completion, and only non-putrescible waste (Type III) is deposited into Cell 3A; therefore, Cell 3A, and soon Cell 3, will not serve as an attractant to the potential local bear population. Once filling of Cell 4 is initiated, and if foraging by bears becomes an issue, the Parish will be in a better position to strategically locate the fence around the active area which will enable a more cost-effective installation and more efficient maintenance and operation of the fence. Part II (LAC 33:VII.521) and Part III (LAC 33:VII.523) have been modified to reflect this proposed change.

INTRODUCTION

3.5 MODIFY NOTIFICATION PROCEDURES FOR TEMPORARY EXTENSION OF OPERATING HOURS

Section 9.1 of the Facilities Operation Plan discusses operating procedures for weather related contingencies (i.e., severe weather events). The text proposed for modification addresses the extension of facility operating hours to handle increased waste volumes from cleanup after severe weather events. More specifically, the text proposed for modification states, "With LDEQ approval, operating hours may also be extended to accommodate increased waste streams after these events." It is proposed that the above sentence be revised to state, "St. Mary Parish Landfill personnel will notify LDEQ if operating hours are temporarily extended to accommodate increased waste intake quantities after these events." The proposed change will allow the Landfill Manager more flexibility to service the needs of the facility's patrons in a timely manner, while still allowing LDEQ oversight of the facility's operations.

PART I

SOLID WASTE STANDARD PERMIT APPLICATION FORM

LAC 33:VII**PART I****519.H-L****H. Type and Purpose of Operations: (check each applicable line)**

Type I	Industrial Landfill	X
	Industrial Surface Impoundment	X
	Industrial Landfarm	
Type I-A	Industrial Incinerator	
	Industrial Shredder/Compactor/Baler	
	Industrial Transfer Station	
Type II	Sanitary Landfill	X
	Residential/Commercial Surface Impoundment	X
	Residential Commercial Landfarm	
Type II-A	Residential/Commercial Incinerator Waste Handling Facility	
	Residential/Commercial Shredder/Compactor/Baler	
	Residential/Commercial Transfer Station	
	Residential/Commercial Refuse-Derived Fuel	
Type III	Construction/Demolition-Debris Landfill	X
	Woodwaste Landfill	X
	Compost Facility	
	Resource Recovery/Recycling Facility	

Other Describe: _____

I. Site Status: Owned __ Leased x Lease Term 39 Years (Expires 12/31/2035)

(Note: If leased, provide copy of lease agreement)

A copy of the lease agreement is attached to Part I as Exhibit 1.

J. Operation Status: Existing x Proposed _____**K. Total Acreage 170 Processing Acreage 0 Disposal Acreage 111****L. Environmental Permits (List)**

A copy of the Louisiana Pollutant Discharge Elimination System (LPDES Permit Number LA 0056227/AI9340 is attached to Part I as Exhibit 2. Documentation for the Parish Waste Tire Collection Point Program (Facility No. RCA-101-4523) is also included in Exhibit 2.

LAC 33:VII**PART I****519.R-S**

- R. Certification: I have personally examined and am familiar with the information submitted in the attached document, and I hereby certify under penalty of law that this information is true, accurate, and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment.

St. Mary Parish Government

Signature: _____

Paul P. Naguin, Jr.
1/29/07

Date: _____

Typed Name and Title: Paul P. Naguin, Jr. - Parish President

(Note: Attach proof of the legal authority of the signee to sign for the applicant.)

Signatory authority is provided as a Resolution, a copy of which is attached as Exhibit 7.

- S. Any additional information required by the administrative authority.

The completed and signed Addendum to Permit Applications per §1701 is presented as Exhibit 8.

PART I EXHIBITS

Exhibit 1

Lease Agreement and Buffer Zone Waiver Affidavit

St. Mary Parish Recording Page

Cliff Dressel
Clerk of Court
P.O. Box 1231
500 Main Street
Franklin, LA 70538
(337) 828-4100

Received From :
ST. MARY PARISH GOVERNMENT
COURTHOUSE BLDG., 500 MAIN ST.
FRANKLIN, LA 70538

First VENDOR

EMERALD LAND CORPORATION

First VENDEE

ST MARY PARISH GOVERNMENT

Index Type : Conveyances

File Number : 286717

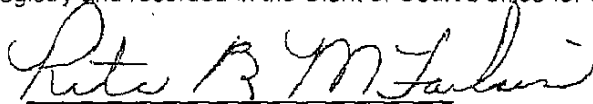
Type of Document : Resolution

Book : 65 Page : 551

Recording Pages : 2

Recorded Information

I hereby certify that the ~~original~~ document was filed for registry and recorded in the Clerk of Court's office for St. Mary Parish, Louisiana


Deputy Clerk

On (Recorded Date) : 08/24/2004

At (Recorded Time) : 3:19:19 PM



Doc ID - 000321570002




Return To :

CORPORATE RESOLUTION

I, M. Taylor Darden, Corporate Secretary of Emerald Land Corporation, a Louisiana corporation domiciled in St. Mary Parish Louisiana ("Company"), hereby certifies that the following resolution was duly adopted by the Board of Directors of said Company at a meeting held on the 22nd day of March 2004 at which meeting all of the directors of the corporation were present, and that the same remains in full force and effect:

That Michael A. Fogarty, the President of the Company, or M. Taylor Darden, the Corporate Secretary of the Company, or either of them, is authorized and empowered to act on behalf of the Company with respect to execution of that certain Second Amendment to Solid Waste Disposal and Landfill Lease, dated effective April 1, 2004, by and between Emerald Land Corporation, as Lessor, and St. Mary Parish Government, as Lessee, for such price and upon such terms and conditions as either he, in his sole discretion, shall deem necessary and proper and in the best interests of the Company.

Executed on this 27th day of July 2004.



M. Taylor Darden, Corporate Secretary

St. Mary Parish Recording Page

Cliff Dressel
Clerk of Court
P.O. Box 1231
500 Main Street
Franklin, LA 70538
(337) 828-4100

Received From :

ST. MARY PARISH GOVERNMENT
COURTHOUSE BLDG., 500 MAIN ST.
FRANKLIN, LA 70538

First VENDOR

EMERALD LAND CORPORATION

First VENDEE

ST MARY PARISH GOVERNMENT

Index Type : Conveyances

File Number : 286504

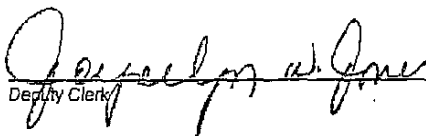
Type of Document : Amendment

Book : 64 **Page :** 351

Recording Pages : 21

Recorded Information

I hereby certify that the ~~5-28-04~~ document was filed for registry and recorded in the Clerk of Court's office for St. Mary Parish, Louisiana


Joycelyn A. Jones
Deputy Clerk

On (Recorded Date) : 07/30/2004

At (Recorded Time) : 10:56:48 AM



Doc ID - 000285180021



Return To :

STATE OF LOUISIANA

PARISH OF ST. MARY

SECOND AMENDMENT TO
SOLID WASTE DISPOSAL AND LANDFILL LEASE

This Second Amendment to Solid Waste Disposal and Landfill Lease ("Amendment") is made and entered into effective this 1st day of April, 2004 ("Effective Date") by and between:

EMERALD LAND CORPORATION, a Louisiana Corporation domiciled in St. Mary Parish, Louisiana, with its registered office in the city of Franklin, herein appearing through its Corporate Secretary, M. Taylor Darden, duly authorized by Resolution of its Board of Directors, a certified copy of which is annexed hereto, hereinafter referred to as LESSOR,

and

ST. MARY PARISH GOVERNMENT, the governing authority of the Parish of St. Mary, State of Louisiana, appearing herein through its Parish President, William A. "Bill" Cefalu, duly authorized by Ordinance of the St. Mary Parish Council, a certified copy of which is attached hereto, hereinafter referred to as LESSEE.

WITNESSETH:

WHEREAS, by written agreement dated on June 1, 1996 ("the Lease"), LESSOR leased to LESSEE that a certain tract or parcel of land containing two hundred four (204) acres, more or less situated in Sections 3, 4, and 9 in Township 16 South, Range 12 East, St. Mary Parish, Louisiana, and outlined in red on the plat attached hereto as Exhibit "A" for the purpose of constructing, maintaining and operating a controlled sanitary landfill area, a construction and demolition debris landfill area and/or a solid waste composting area.

WHEREAS, by Amendment to Solid Waste Disposal And Landfill Lease, dated effective October 1, 1998 ("the Amendment"), LESSOR AND LESSEE amended the lease to provide, inter alia, that:

- (a) The Lease, as amended, covered and included the "Additional Property" referred to and described in the Amendment, which said Additional Property is shown on the plat attached hereto as Exhibit "A";
- (b) The term of the Lease, as amended, was extended to June 30, 2009, or until the expiration of LESSEE'S operating permit, which ever occurred later, but in no event later than December 31, 2009;
- (c) The LESSEE agreed to pay additional and recalculated rent to the LESSOR during the term of the Lease, as amended, and for a limited period thereafter;
- (d) The LESSOR was granted a right of audit with respect to the calculation of rent due under the Lease, as amended; and
- (e) The LESSEE was permitted to fill the remaining unfilled portion of "CELL 3" to a maximum height of forty-two (42) feet, or such other maximum height as permitted by the Louisiana Department of Environmental Quality.

WHEREAS, LESSOR AND LESSEE desire further to amend the Lease in the particulars hereinafter set forth.

NOW THEREFORE, the parties hereto, in consideration of the foregoing and the mutual promises, covenants and agreements herein contained, hereby agree as follows:

1.

The following described property is hereby released and excluded from the Lease, as amended, to wit:

That certain tract of land located in St. Mary Parish, Louisiana, Sections 4 and 9, Township 16 South, Range 12 East. Said tract contains 241.93 acres and is more fully described as follows:

BEGINNING at Point AA having a Lambert Coordinate of X=3,307,322.77 and Y=422,614.91; **THENCE** North 00° 36' 27" West for a distance of 2,500.00 feet to Point BB, having a Lambert Coordinate of X=3,307,296.27 and Y=425,114.76; **THENCE** northeasterly along a line being parallel and 100 feet from the southeasterly edge of the Berwick Drainage Canal for a distance of approximately 4,496 feet to Point CC, having a Lambert Coordinate of X=3,310,734.79 and Y=427,966.27; **THENCE** South 00° 36' 27" East for a distance of 2,691.52 feet to Point DD, having a Lambert Coordinate of X=3,310,763.32 and Y=425,274.90; **THENCE** South 89° 23' 34" West for a distance of 1,323.92 feet to Point EE, having a Lambert Coordinate of X=3,309,439.47 and Y=425,260.87; **THENCE** South 00° 23' 19" East for a distance of 2,623.38 feet to Point FF, having a Lambert Coordinate of X=3,309,457.26 and Y=422,637.55; **THENCE** South 89° 23' 32" West for a distance of 2,134.61 feet to the **POINT OF BEGINNING**, all containing 241.93 acres, all as is more fully shown on plat, attached hereto as Exhibit "A," showing a portion of property of Emerald Land Corporation as Tract AA, BB, CC, DD, EE, FF, and AA area to be released by St. Mary Parish Government, prepared by Professional Engineering and Surveying Company, Inc. dated December 9, 2002.

The above described property is hereinafter referred to as the "Release Acreage".

2.

Subject to the terms and conditions hereinafter set forth, and the terms and conditions set forth in the Lease, as amended, and for the purposes as therein described and hereinafter described, and for the consideration hereinafter stipulated, LESSOR does hereby lease and let unto LESSEE the surface of the following described property situated in the Parish of St. Mary, State of Louisiana, the aerial extent of which is shown on the plat attached thereto as Exhibit "B", to wit:

That certain tract of land located in Sections 3, 4, 9 and 11, Township 16 South - Range 12 East, St. Mary Parish, Louisiana, containing 410.14 acres and is more fully described as follows:

BEGINNING at Point A having a Lambert Coordinate of X=3,306,721.64 and Y=424,583.15; **THENCE** in a northerly direction along the easterly side of a pipeline right of way these courses and distances: North 05°55'10" East for a distance of 1,695.04 feet; North 05°49'54" East for a distance of 1,061.11 feet to Point B, having a Lambert Coordinate of X=3,307,004.27 and Y=427,324.77; **THENCE** North 62°57'23" West for a distance of 149.64 feet to Point C, having a Lambert Coordinate of X=3,306,871.00 and Y=427,392.81; **THENCE** North 05°52'02" East for a distance of 1,083.91 feet to Point D, having a Lambert Coordinate of X=3,306,981.80 and Y=428,471.04; **THENCE** North 81°45'02" East for a distance of 144.44 to Point E along the easterly of a pipeline right of way, having a Lambert Coordinate of X=3,307,124.74 and Y=428,491.76; **THENCE** in a northerly direction along the easterly side of a pipeline right of way these

courses and distances: North 05°49'58" East for a distance of 1,247.72 feet; North 05°48'42" East for a distance of 702.93 feet; North 06°16'10" East for a distance of 255.30 feet along the easterly side of a pipeline right of way to Point F on the southerly side of a pipeline right of way, having a Lambert Coordinate of X=3,307,350.60 and Y=430,686.11; **THENCE** in a northeasterly direction along the southerly side of a pipeline right of way these courses and distances: North 76°35'50" East for a distance of 1,055.37 feet; North 76°41'59" East for a distance of 1,600.51 feet; North 76°34'00" East for a distance of 784.18 feet to Point G, having a Lambert Coordinate of X=3,310,697.53 and Y=431,481.12; **THENCE** South 00°36'27" East for a distance of 2,249.37 feet along the line between Sections 3 and 4 to Point H, having a Lambert Coordinate of X=3,310,721.37 and Y=429,231.88; **THENCE** North 89°23'37" East for a distance of 165.52 feet to Point I, having a Lambert Coordinate of X=3,310,886.88 and Y=429,233.63; **THENCE** North 81°47'02" East for a distance of 1,163.48 feet to Point J, having a Lambert Coordinate of X=3,312,038.42 and Y=429,399.90; **THENCE** South 00°36'54" for a distance of 492.32 feet to Point K, having a Lambert Coordinate of X=3,312,043.70 and Y=428,907.61; **THENCE** along a line being parallel and 100 feet from the southeasterly edge of the Berwick Drainage Canal for a distance of approximately 6,900 feet to the **POINT OF BEGINNING**, all containing 410.14 acres, more fully shown on plat attached hereto as Exhibit "B," showing a portion of property of Emerald Land Corporation as Tracts A, B, C, D, E, F, G, H, I, J, K and A optioned for lease by St. Mary Parish Government, prepared by Professional Engineering and Surveying Company, Inc. dated November 26, 2002.

The above described property is hereinafter referred to as the "Supplemental Property". The Supplemental Property, together with the property originally leased to **LESSEE** and the Additional Property (less and except the Released Acreage) is hereinafter collectively referred to as the "Leased Premises".

3.

Article 3 of the Lease, as amended, is hereby deleted in its entirety. In its place, the following paragraph is substituted:

"3.

This Lease, as amended, shall expire on June 30, 2035, or until the expiration of **LESSEE'S** standard operating permit, as amended, modified or extended, which ever occurs later, but in no event later than December 31, 2035. Upon termination of this Lease for any reason, **LESSEE** shall close the landfill and provide post closure care of the landfill in accordance with all applicable rules and regulations then in effect regarding the closure of landfill operations conducted within the State of Louisiana."

4.

Article 4 of the Lease, as amended, is hereby deleted in its entirety. In its place, the following paragraphs are substituted:

"4.

The consideration for this Lease, as amended, is the payment by **LESSEE** to **LESSOR** of the cash rentals and fees (the Annual Rent, Additional Monthly Rent, Surcharge and Post Termination

Fees as hereinafter set forth), and the stipulations, agreements and obligations herein undertaken and agreed to by LESSEE, all of which are recognized as material parts of the consideration of this Lease without which LESSOR would not have executed this Lease, as amended.

(a) **Annual Rent.** Commencing on June 1, 2004, LESSEE shall pay LESSOR as Annual Rent the sum of Five Thousand and No/100 Dollars (\$5,000.00). Thereafter, for the remaining term of the Lease as amended, i.e. through June 30, 2035 (or if LESSEE'S operating permit is extended, then to the expiration of said permit, or December 31, 2035, which ever occurs first), the Annual Rent shall be adjusted for inflation annually on the 1st of June. The Annual Rent shall be re-calculated using the following formula: The amount paid as Annual Rent the previous year multiplied by one (1) plus any percentage increase, if any, in the Consumer Price Index for Urban Wage Earners and Clerical Workers published by the Bureau of Labor Statistics of the United States Department of Labor, or any revision thereof; or, if such is no longer available, any equivalent of such index published by the United States Government, hereafter the "CPI Increase." In determining the CPI Increase, LESSEE shall compare the appropriate CPI figure published for the month of January immediately preceding the annual rental payment with the same figure published for the month of January the year before. If, however, such figures are not available twenty-one days before the annual rental payment is due, the LESSEE may pay to LESSOR a payment equal to the previous year's payment, and remit a check to LESSOR for the difference, if any, when the CPI Increase becomes known. Notwithstanding the calculation of the Annual Rent as described above, the CPI Increase shall never be less than two and one-half (2.5%) percent, nor more than five (5%) percent annually. LESSEE shall not be entitled to prorate the Annual Rent which shall be due on June 1, 2034, or if the Lease is extended, the Annual Rent which shall be due on June 1, 2035.

(b) **Additional Monthly Rent.** Commencing on June 1, 2004, and continuing through December 31, 2004, LESSEE shall pay LESSOR as Additional Monthly Rent the sum of One and 50/100 (\$1.50) Dollars per ton of solid waste material disposed of on the Leased Premises. Thereafter, for each month during the next calendar year of the Lease, i.e. from January 1, 2005 through December 31, 2005, LESSEE shall pay LESSOR as Additional Monthly Rent the sum of One and 65/100 (\$1.65) Dollars per ton of solid waste material disposed of on the Leased Premises. Thereafter, the Additional Monthly Rent shall escalate by Fifteen (15¢) Cents per year for each successive year until December 31, 2014. Commencing January 1, 2015, the Additional Monthly Rent shall escalate by Twenty-five (25¢) Cents per year for each successive year until December 31, 2025. Commencing January 1, 2026, the Additional Monthly Rent shall escalate by Thirty-five (35¢) Cents per year for each successive year for the remainder of the Lease. To illustrate: For the twelve month period commencing on January 1, 2006, the Additional Monthly Rent shall be One Dollar and 80/100 (\$1.80) per ton of solid waste material disposed of on the Leased Premises. For the year commencing on January 1, 2015, the Additional Monthly Rent shall be Three Dollars and 25/100 (\$3.25) per ton, and for the year commencing on January 1, 2026, the Additional Monthly Rent shall be Six Dollars and 10/100 (\$6.10) per ton.

(c) **Industrial Solid Waste Material Surcharge** ("Surcharge"). In the event LESSEE accepts Industrial Solid Waste Material (as hereinafter defined), LESSEE shall pay LESSOR, in addition to the Annual Rent and the Additional Monthly Rent, the sum of Five Dollars (\$5.00) per ton as a Surcharge on all Industrial Solid Waste Material disposed of on the Leased Premises. The Surcharge shall be adjusted for inflation annually on the 1st of June in the same manner, and using the same formula, as the adjustment and re-calculation of the Annual Rent due under the Lease. For the purposes of this subparagraph, "Industrial Solid Waste Material" shall be defined consistent with the definition of "Industrial Solid Waste" as set forth in Louisiana Administrative Code Title 33:VII.115, as now or hereafter amended.

(d) **Post Termination Fee.** Upon termination of this Lease for any reason, LESSEE shall pay LESSOR an annual Post Termination Fee, which amount shall be fixed and equal to the amount of the last Annual Rent paid under the terms and conditions of this Lease. The Post Termination Fee shall be paid in the same manner as the Annual Rent; provided, however, that if this Lease shall terminate on December 31, 2035, the first annual Post Termination Fee shall not be due and payable until June 1, 2036. LESSEE shall be obligated to pay the Post Termination Fee annually for so long as LESSEE is required to provide post closure care of the landfill in accordance with all applicable rules and regulations then in effect regarding the closure of landfill operations conducted within the State of Louisiana.

(e) **Payment Due Dates.** The following due dates shall govern the payment of all rent, surcharge and fees due under the Lease. All amounts due under the Lease shall be considered to have been properly paid when placed in the United States Mail, with adequate postage paid, to LESSOR'S address as shown above, on or before the following due date.

- (1) All Annual Rent payable under the Lease, as amended, shall be paid to LESSOR in advance on or before the 1st day of June of each such year;
- (2) All Additional Monthly Rent shall be paid to LESSOR no later than the twentieth (20th) day following the month in which such solid waste material is disposed of on the Leased Premises;
- (3) The Surcharge shall be paid to LESSOR no later than the twentieth (20th) day following the month in which Industrial Solid Waste Material is disposed of on the Leased Premises; and
- (4) All annual Post Termination Fees payable under the Lease shall be paid to LESSOR in advance on or before the 1st day of June of each such year.

(f) **Change of Address.** No change of address of any party hereto shall be effective as to any other party hereto until forty-five (45) days after having been furnished with written notice of such change of address by Certified United States Mail, Return Receipt Requested.

(g) **Audit Rights.** LESSEE shall keep reasonable and accurate records of the total volume (by ton) of solid waste material and Industrial Solid Waste Material disposed of on the Leased Premises. Upon reasonable notice, LESSOR shall have the right to audit such records for any calendar year within the twenty four (24) month period following the end of such calendar year; provided, however, that no more than one audit may be conducted by LESSOR during any calendar year."

5.

By adding a new Article to the Lease, to be numbered Article 4A, to read as follows:

"4A.

The financial terms and conditions of the Lease, as set forth in Paragraph 4, as amended, shall be subject to renegotiation under the following circumstances:

(a) In the event market conditions are such that LESSEE is unable to operate the landfill because the amount of the Additional Monthly Rent renders the fees and expenses ("tipping fees") charged by LESSEE for solid waste material disposed of on the Leased Premises uneconomical or non-competitive with other solid waste disposal facilities situated within a fifty (50) mile radius of the Leased Premises; provided, however, that such market conditions exist for a period of not less than twelve consecutive months;

(b) In the event the "tipping fees" charged by LESSEE for the disposal of solid waste material on the Leased Premises are less than ninety (90%) percent, on average for all categories, of the "tipping fees" charged by the geographically nearest three (3) solid waste disposal facilities and/or solid waste transfer stations;

(c) In the event LESSEE accepts Out of Parish Solid Waste Material (as hereinafter defined). For the purposes of this subparagraph, "Out of Parish Solid Waste Material" shall be defined as any solid waste material which is received and accepted by LESSEE from generators located more than five (5) miles from any of the boundaries of St. Mary Parish.

Either party may give the other party written Notice of its intent to re-negotiate the financial terms and conditions of Paragraph 4, as amended, of the Lease, setting forth the particulars, in reasonable detail, of the circumstances giving rise to the right to re-negotiate. Within thirty (30) days of receipt of such Notice, the parties shall meet in a good faith effort to re-negotiate the amount of the Annual Rent, the Additional Monthly Rent, the Surcharge and the Post Termination Fee due under the then existing terms and conditions of the Lease. In the event the parties are unable to agree upon the amount to be charged, either party may elect to have the dispute referred to the American Arbitration Association for binding arbitration. The then current Commercial Arbitration Rules and Mediation Procedures of the American Arbitration Association shall govern the course and conduct of any such proceeding, except that the dispute shall be decided by one arbitrator mutually selected by the parties from a list supplied to them by the American Arbitration Association. The award of the arbitrator shall be prospective only. The arbitration shall be held in St. Mary Parish, Louisiana, provided that LESSEE shall provide, at its sole cost and expense, a suitable location for said arbitration.

Except as amended herein, all remaining terms and conditions of the Lease, as amended, shall remain in full force and effect.

THUS DONE AND SIGNED in the presence of the undersigned competent witnesses as of the Effective Date of this instrument even though the signatures may be affixed prior to or subsequent thereto.

WITNESSES:

LESSOR

EMERALD LAND CORP.

By:

M. Taylor Darden
M. Taylor Darden, Corporate Secretary

Nia C. Spigale
Patricia L. Carter

LESSEE

ST. MARY PARISH GOVERNMENT

By:

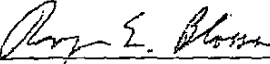
William A. Cefalu
William A. "Bill" Cefalu, President

Henry L. Loring
Carlynn Loring

STATE OF LOUISIANA

PARISH OF ORLEANS

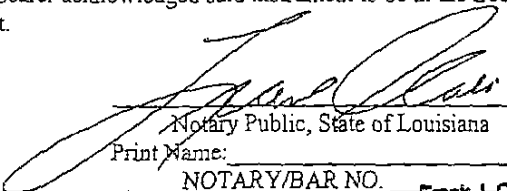
ON THIS 1st day of July 2004, before me, the undersigned Notary Public, personally appeared M. TAYLOR DARDEN, who by me duly sworn did state that he is the Corporate Secretary of Emerald Land Corporation, and that the foregoing Second Amendment to Solid Waste Disposal And Landfill Lease was signed by him on behalf of said Corporation by authority of its Board of Directors and said appearer acknowledged said instrument to be in the free act and deed of said Corporation.


 Notary Public, State of Louisiana
 Print Name: Roy E. Blussman
 NOTARY/BAR NO. Notary Public
Bar # 16813
My commission is for life

STATE OF LOUISIANA

PARISH OF ST. MARY

ON THIS 14 day of Aug 2004, before me, the undersigned Notary Public, personally appeared WILLIAM A. "BILL" CEFALU, who by me duly sworn did state that he is the President of St. Mary Parish, and that the foregoing Second Amendment to Solid Waste Disposal And Landfill Lease was signed by him on behalf of said Parish by authority of the St. Mary Parish Council and said appearer acknowledged said instrument to be in the free act and deed of St. Mary Parish Government.


 Notary Public, State of Louisiana
 Print Name: Frank J. Celi
 NOTARY/BAR NO. # 40818



Kenneth Fontenot
KENNETH FONTENOT, PLS. NO. 4428

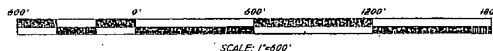
THIS SURVEY WAS CONDUCTED BY ME OR UNDER MY DIRECT SUPERVISION BASED ON STANDARDS FOR CLASS B SURVEYS IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

411 Wall Street
Lafayette, LA 70506-3029

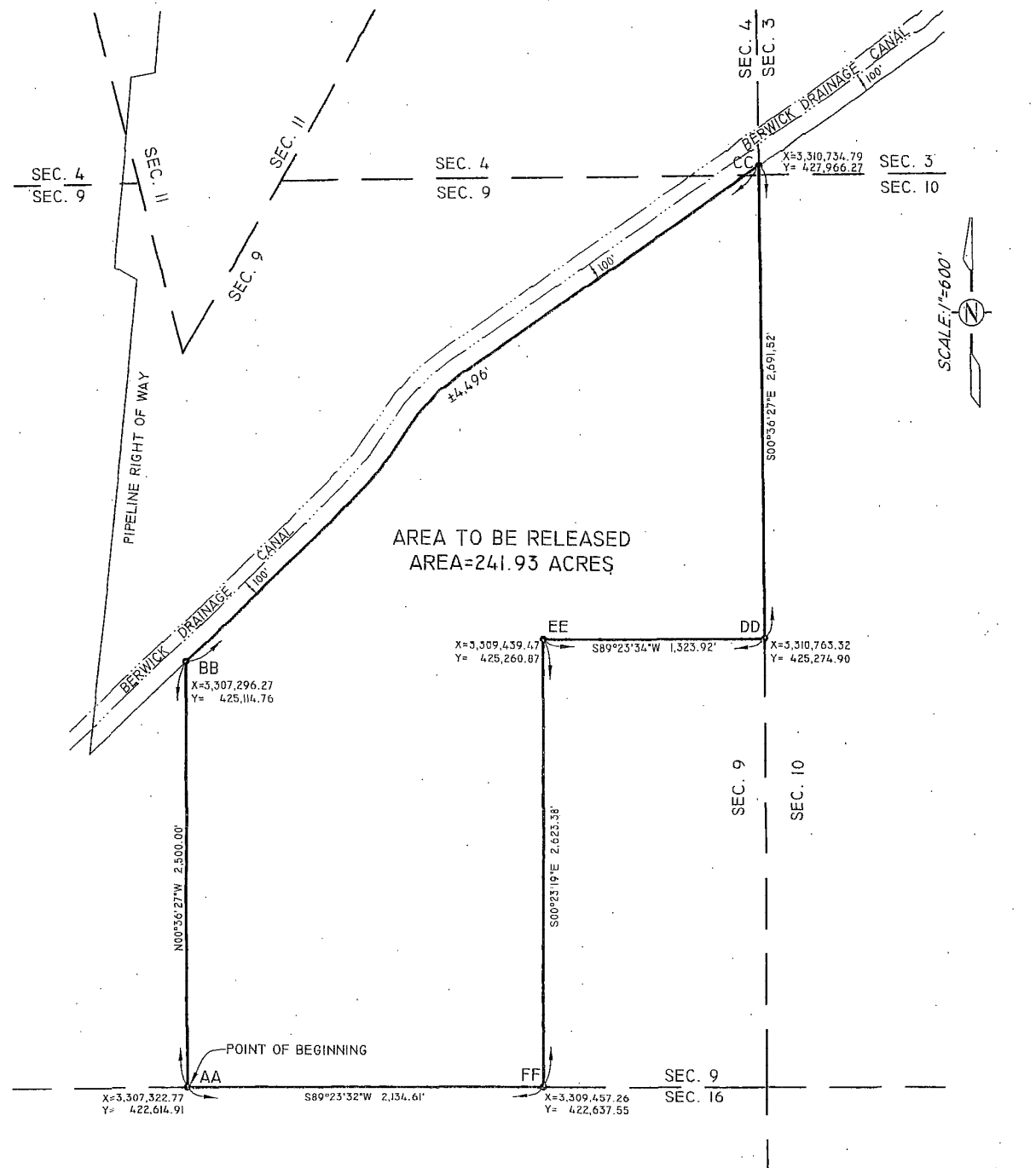
PENSCO
PROFESSIONAL ENGINEERING AND SURVEYING CO., INC.



PLAT SHOWING
A PORTION OF PROPERTY OF
EMERALD LAND CORP.
TRACT A,B,C,D,E,F,G,H,I,J,K, & A
OPTIONED FOR LEASE BY
ST. MARY PARISH GOVERNMENT
LOCATED IN
SECTIONS 3, 4, 9 & 11, T 16 S-R 12 E
WARD 8
ST. MARY PARISH, LOUISIANA
SCALE: 1"=600' DATE: NOV. 26, 2002



SECTIONS 4 & 9, T 16 S-R 12 E
ST. MARY PARISH, LOUISIANA



Kenneth Fontenot
KENNETH FONTENOT, PLS. NO. 4428

THIS SURVEY WAS CONDUCTED BY ME OR UNDER MY DIRECT SUPERVISION BASED ON STANDARDS FOR CLASS B SURVEYS IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

411 Wall Street
Lafayette, LA 70506-3029
ENSCO
PROFESSIONAL ENGINEERING AND SURVEYING CO., INC.

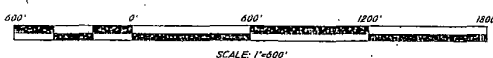
PLAT SHOWING
A PORTION OF PROPERTY OF
EMERALD LAND CORP.

TRACTS AA, BB, CC, DD, EE, FF, & AA
AREA TO BE RELEASED

ST. MARY PARISH GOVERNMENT

LOCATED IN
SECTIONS 4 & 9, T 16 S-R 12 E
WARD 8

ST. MARY PARISH, LOUISIANA
SCALE: 1"=600' DATE: DEC. 9, 2002



RECORDATION RECEIPTSTATE OF LOUISIANA
PARISH OF ST. MARYTHIS CERTIFIED THAT THERE HAS BEEN RECEIVED FOR RECORDATION
AN ACT OF:

AMENDMENT TO SOLID WASTE DISPOSAL AND LANDFILL LEASE

FROM:

EMERALD LAND CORPORATION

TO:

ST MARY PARISH GOVERNMENT

REGISTERED IN

CONVEYANCE BOOK NO. 42-C	ENTRY NO. 264,621	PAGE NO. 203
MORTGAGE BOOK NO.	ENTRY NO.	PAGE NO.
BOOK NO.	ENTRY NO.	PAGE NO.

OF THE RECORDS OF THE PARISH OF ST. MARY, STATE OF LOUISIANA AT

2:15 P.M.

FEBRUARY 8, 1999

CLIFF DRESSEL

Clerk, Ex-Officio Recorder, St. Mary Parish, LA

BY:


Deputy Clerk of Court

STATE OF LOUISIANA

PARISH OF ST. MARY

**AMENDMENT TO
SOLID WASTE DISPOSAL AND LANDFILL LEASE**

This Amendment to Solid Waste Disposal and Landfill Lease ("Amendment") is made and entered into effective this 1st day of October, 1998 ("Effective Date") by and between:

EMERALD LAND CORPORATION, a Louisiana Corporation domiciled in St. Mary Parish, Louisiana, with its registered office in the city of Franklin, herein appearing through its President, Michael A. Fogarty, duly authorized by Resolution of its Board of Directors, a certified copy of which is annexed hereto, hereinafter referred to as **LESSOR**, and

ST. MARY PARISH GOVERNMENT, the governing authority of the Parish of St. Mary, State of Louisiana, appearing herein through its Parish President, Oray P. Rogers, duly authorized by Ordinance of the St. Mary Parish Council, a certified copy of which is attached hereto, hereinafter referred to as **LESSEE**.

WITNESSETH:

WHEREAS, by written agreement dated on June 1, 1996 ("the Lease"), **LESSOR** leased to **LESSEE** that certain tract or parcel of land containing two hundred four (204) acres, more or less situated in Sections 3, 4, and 9 in Township 16 South, Range 12 East, St. Mary Parish, Louisiana, outlined in red on the plat attached hereto as Exhibit "A" and more particularly described as follows:

Beginning at point AA in said Section 9, as shown on plat entitled "Map Showing a Portion of Property of EMERALD LAND CORP. Located in Sections 3, 4, & 9 T16S-R12E Ward 8 St. Mary Parish, Louisiana", dated November 15, 1994, drawn by Pensco, Professional Engineering and Surveying Co., Inc. a copy of which is attached hereto as Exhibit "A" and made a part hereof; Thence North a distance of 1,300+- feet to point B; Thence North 31 Degrees 45.05 Minutes East a distance of 4,252.00 feet to point C; Thence East a distance of 1,231.00 feet to point D; Thence South a distance of 1,319.88 feet to point E; Thence East a distance of 1,318.82 feet to point F; Thence South to the intersection of the East line of Lot 5 of Section 3 with the Berwick Drainage Canal, or point FF; Thence Southwesterly along the Berwick Drainage Canal to Point AA the point of beginning; and

WHEREAS, **LESSOR AND LESSEE** desire to amend the Lease in the particulars hereinafter set forth.

NOW THEREFORE, the parties hereto, in consideration of the foregoing and the mutual promises, covenants and agreements herein contained, hereby agree as follows:

1.

Subject to the terms and conditions hereinafter set forth, and the terms and conditions set forth in the Lease, and for the purposes as therein described and hereinafter described, and for the consideration hereinafter stipulated, **LESSOR** does hereby, in addition to the foregoing described property, lease and let unto **LESSEE** the surface of the following described property situated in the Parish of St. Mary, State of Louisiana, the areal extent of which is outlined in blue on the plat attached thereto as Exhibit "A", to wit:

That certain tract or parcel of land containing two hundred ninety-two (292) acres, more or less situated in Sections 3, 4 and 9 in Township 16 South, Range 12 East, St. Mary Parish, Louisiana. Beginning at point A in said Section 9, as shown on plat entitled "Map Showing a Portion of Property of EMERALD LAND CORP. Located in Sections 3, 4 & 9 T16S-R12E Ward 8 St. Mary Parish, Louisiana", dated November 15, 1994, drawn by Pensco, Professional Engineering and Surveying Co., Inc. a copy of which is attached

hereto as Exhibit "A" and made a part hereof; Thence North a distance of 2,980 feet (more or less) to point AA; Thence Northeast along the northern bank of the Berwick Drainage Canal to point FF; Thence South a distance of 1,205 feet (more or less) to point G; Thence West a distance of 1,318.82 feet to point H; Thence South a distance of 2,637.32 feet to point I; Thence West a distance of 1,323.92 feet to point J; Thence South a distance of 2,623.38 feet to point K; thence West a distance of 2,134.61 feet to Point A, the point of beginning.

And that certain tract or parcel of land situated in Township 16 South, Range 12 East, St. Mary Parish, Louisiana, being a portion of property of Emerald Land Corporation lying North of the Berwick Drainage Canal and adjacent to and east of Line "AA-B". Said tract being bordered on the North by property of Berwick Land Company, on the East by property of Emerald Land Corporation, on the South by the Berwick Drainage Canal and on the West by the eastern right of way of that certain Texaco, Inc. 30" pipeline as shown on the attached plat.

LESS AND EXCEPT that portion of Lot 5, lying and situated south of the Berwick Drainage Canal and measuring 15 acres, more or less.

The above described property hereinafter referred to as the "Additional Property". The Additional Property, together with the property originally leased to LESSEE being collectively referred to as the "Leased Premises".

2.

Article 3 of the Lease is hereby deleted in its entirety. In its place, the following paragraphs are substituted:

This Lease, as amended, shall expire on June 30, 2009, or until the expiration of LESSEE'S operating permit, which ever occurs later, but in no event later than December 31, 2009. Upon termination of this Lease for any reason, LESSEE shall close the landfill and provide post closure care of the landfill in accordance with all applicable rules and regulations then in effect regarding the closure of landfill operations conducted within the State of Louisiana.

3.

Article 4 of the Lease is hereby deleted in its entirety. In its place, the following paragraphs are substituted:

The consideration for this Lease, as amended, is the payment by LESSEE to LESSOR of the cash rentals and fees (the Annual Rent, Additional Monthly Rent and Post Termination Fees as hereinafter set forth), and the stipulations, agreements and obligations herein undertaken and agreed to by LESSEE, all of which are recognized as material parts of the consideration of this Lease without which LESSOR would not have executed this Lease, as amended.

(a) *Annual Rent.* Commencing on June 1, 1999, the LESSEE shall pay LESSOR as Annual Rent the sum of Two Thousand Five Hundred and No/100 Dollars (\$2,500.00). Thereafter, for the remaining term of the Lease as amended, i.e. through June 30, 2009 (or if LESSEE'S operating permit is extended, then to the expiration of said permit, or December 31, 2009, which ever occurs first), the Annual Rent shall be adjusted for inflation each year. The Annual Rent shall be paid in an amount equal to the previous year's payment, multiplied times one (1), plus any percentage increase, if any, from the previous year's payment, in the Consumer Price Index for Urban Wage earners and clerical workers published by the Bureau of Labor Statistics of the United States Department of Labor, or any revision thereof; or, if such is no longer available, any equivalent of such index published by the United States Government, hereinafter referred to as "CPI Increase". In determining the CPI Increase, LESSEE shall compare the appropriate CPI figure published for the month of January immediately preceding the annual rental payment with the same figure published for the month of January the year before. If, however, such figures are not available twenty-one

days before the annual rental payment is due, then LESSEE may pay to LESSOR a payment equal to the previous year's payment, and remit a check to LESSOR for the difference, if any, when same becomes known. Said annual rental shall be considered to have been properly paid when placed in the United States Mail, with adequate postage paid, to LESSOR'S address as shown above, on or before the due date. No change of address of any party hereto shall be effective as to any other party hereto until forty-five (45) days after having been furnished with written notice of such change of address by Certified United States Mail, Return Receipt Requested. LESSEE shall not be entitled to prorate the Annual Rent which shall be due on June 1, 2008, or if the Lease is extended, Annual Rent which shall be due on June 1, 2009. All Annual Rent payable under the Lease, as amended, shall be paid in advance on or before the 1st day of June of each such year.

(b) **Additional Monthly Rent.** Commencing with the first month following the Effective Date and for twelve months thereafter, LESSEE shall pay LESSOR as Additional Monthly Rent the sum of Seventy-Five Cents (\$.75) per ton of solid waste material disposed of on the Leased Premises. Thereafter, for each month during the next year of the Lease, i.e. from October 1, 1999 through September 30, 2000, LESSEE shall pay LESSOR as Additional Monthly Rent the sum of Eighty-five cents (\$.85) per ton of solid waste material disposed of on the Leased Premises. The Additional Monthly Rent shall escalate by Ten (\$.10) Cents per year for each successive year during the remainder of the Lease. To illustrate: For the twelve month period commencing on October 1, 2000, the Additional Monthly Rent shall be Ninety-Five Cents (\$.95) per ton of solid waste material disposed of on the Leased Premises. For the period commencing on October 1, 2008 through the end of the Lease, i.e. through June 30, 2009, the Additional Monthly Rent shall be One Dollar and Seventy-Five Cents (\$1.75) per ton of solid waste material disposed of on the Leased Premises; provided, however, that if the Lease is extended until December 31, 2009, the Additional Rent for the period beginning on October 1, 2009 through December 31, 2009, shall be One Dollar and Eighty-Five Cents (\$1.85) per ton of solid waste material disposed of on the Leased Premises. The Additional Monthly Rent shall be paid to LESSOR no later than the twentieth (20th) day following the month in which such solid waste material is disposed of on the Leased Premises.

(c) **Post Termination Fee.** Upon termination of this Lease for any reason, LESSEE shall pay LESSOR an annual Post Termination Fee, which amount shall be fixed and equal to the amount of the last Annual Rent paid under the terms and conditions of this Lease. The Post Termination Fee shall be paid in the same manner as the Annual Rent; provided, however, that if this Lease shall terminate on December 31, 2009, the first annual Post Termination Fee shall not be due and payable until June 1, 2010. LESSEE shall be obligated to pay the Post Termination Fee annually for so long as LESSEE is required to provide post closure care of the landfill in accordance with all applicable rules and regulations then in effect regarding the closure of landfill operations conducted within the State of Louisiana. All annual Post Termination Fees payable under the Lease shall be paid in advance on or before the 1st day of June of each such year.

(d) **Audit Rights.** LESSEE shall keep reasonable and accurate records of the total volume (by ton) of solid waste material disposed of on the Leased Premises. Upon reasonable notice, LESSOR shall have the right to audit such records for any calendar year within the twenty four (24) month period following the end of such calendar year; provided, however, that no more than one audit may be conducted by LESSOR during any calendar year.

5.

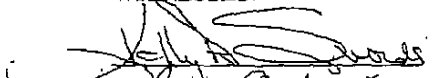
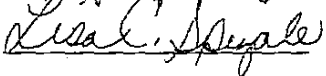
Section 5 of the Lease is hereby amended to permit, LESSEE to fill the remaining unfilled portion within the area shown and designated as "CELL 3" on the attached plat to a maximum height of forty-two (42) feet; provided, however, that in the event that LESSEE obtains from the Louisiana Department of Environmental Quality a new landfill permit allowing horizontal and vertical expansion of Cell 3, the remaining portion of Cell 3 not yet filled and that area designated as "Area for Future Expansion" on the attached plat (also referred to as Area 4 of the Leased Premises prior to this Amendment), then LESSEE shall be allowed to fill or pile solid waste and/or cover material on said areas to the maximum height allowed in said permit.



6.

Except as amended herein, all remaining terms and conditions of the Lease as originally set forth shall remain in full force and effect.

THUS DONE AND SIGNED in the presence of the undersigned competent witnesses as of the Effective Date of this instrument even though the signatures may be affixed prior to or subsequent thereto.

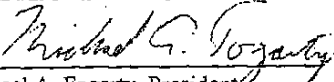
WITNESSES:

LESSOR

EMERALD LAND CORP.

BY: 
 Michael A. Fogarty, President

LESSEE

ST. MARY PARISH GOVERNMENT

BY: 
 Oray P. Rogers, President

STATE OF LOUISIANA

PARISH OF ST. MARY

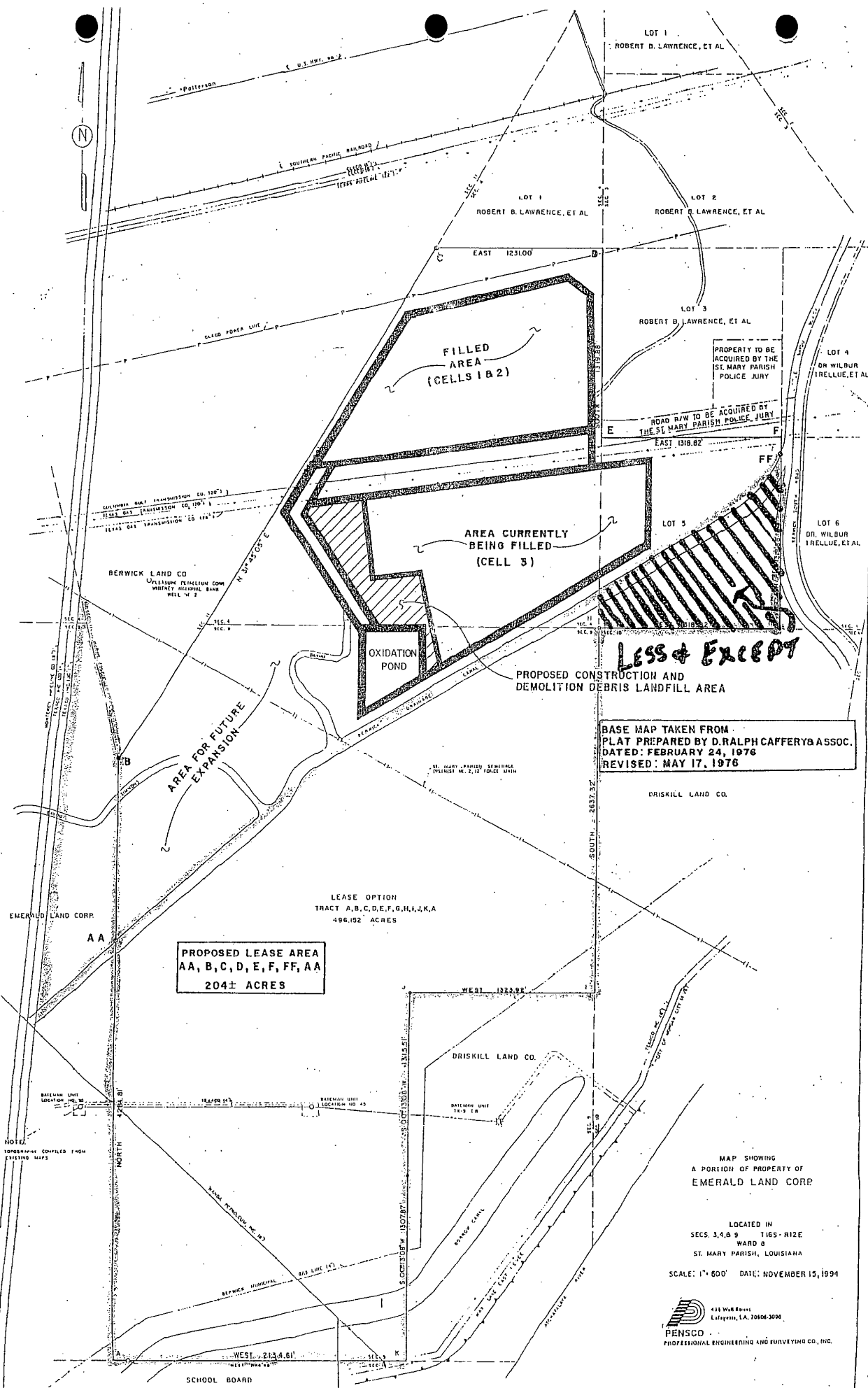
ON THIS 20th day of Jan, 1999, before me, the undersigned Notary Public, personally appeared **MICHAEL A. FOGARTY**, who by me duly sworn did state that he is the President of the Emerald Land Corporation, and that the foregoing Amended Lease was signed by him on behalf of said Corporation by authority of its Board of Directors and said appearer acknowledged said instrument to be in the free act and deed of said Corporation.


 NOTARY PUBLIC

STATE OF LOUISIANA
 PARISH OF ST. MARY

ON THIS 29 day of December, 1998, before me, the undersigned Notary Public, personally appeared **ORAY P. ROGERS**, who by me duly sworn did state that he is the President of St. Mary Parish, and that the foregoing Amended Lease was signed by him on behalf of said Parish by authority of the St. Mary Parish Council and said appearer acknowledged said instrument to be in the free act and deed of St. Mary Parish Government.


 NOTARY PUBLIC



EMERALD LAND CORPORATION
(A Louisiana Corporation domiciled in St. Mary Parish, LA)

Energy Centre

1100 Poydras Street - Suite 2700 - New Orleans, Louisiana 70163
Telephone (504) 585-3800 Telecopier (504) 585-3801

May 6, 2002

St. Mary Parish Council
Fifth Floor- Courthouse
Franklin, Louisiana 70538-6198

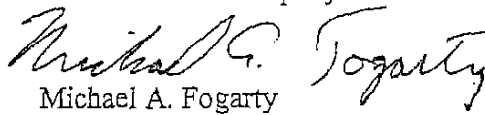
Re: Property Bordering the Harold J. "Babe" Landry Landfill
Berwick, St. Mary Parish, Louisiana

Gentlemen:

Emerald Land Company understands that the Louisiana Department of Environmental Quality (LDEQ), in accordance with LAC VII.709.B.2.a, requires a 200-foot buffer zone between a solid waste disposal facility and the adjacent property line. Emerald Land Company hereby agrees to waive its rights to that buffer zone with respect to the Harold J. "Babe" Landry Landfill, and further agrees to have no buffer zone with respect to the Harold H. "Babe" Landry Landfill, and further agrees to have no buffer zone between the facility and all Emerald Land Company property lines adjacent to the facility.

Best regards,

Emerald Land Company



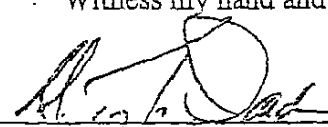
Michael A. Fogarty
President

STATE OF LOUISIANA

PARISH OF ORLEANS

Before me, a Notary Public in and for the State and Parish mentioned, personally came and appeared Michael A. Fogarty, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and to who, upon oath, acknowledge such person to be the within bargainor, and that as such bargainor executed the foregoing instrument for the purpose therein contained, by signed the above instrument.

Witness my hand and seal in New Orleans, Louisiana, this 6th day of May, 2002.


NOTARY PUBLIC

My commission expires at death.

RECORDATION RECEIPT

STATE OF LOUISIANA

PARISH OF ST. MARY

THIS CERTIFIED THAT THERE HAS BEEN RECEIVED FOR RECORDATION
AN ACT OF:

AGREEMENT

FROM:

EMERALD LAND COMPANY

TO:

HAROLD J. "BABE" LANDRY LANDELL

REGISTERED IN

CONVEYANCE BOOK NO. 45-C	ENTRY NO. 277,511	PAGE NO. 11
MORTGAGE BOOK NO. 914	ENTRY NO. 251,325	PAGE NO. 205
BOOK NO.	ENTRY NO.	PAGE NO.

OF THE RECORDS OF THE PARISH OF ST. MARY, STATE OF LOUISIANA AT

10:55 A.M.

JUNE 6, 2002

CLIFF DRESSEL

Clerk, Ex-Officio Recorder, St. Mary Parish, LA

BY:

Deputy Clerk of Court

EMERALD LAND CORPORATION

(A Louisiana Corporation domiciled in St. Mary Parish, LA)

ENTRY NO. 277511 RECORDED IN CONVEYANCE BOOK 45C AT FOLIO 11
 1100 Poydras Street - Suite 2700 - New Orleans, Louisiana 70163
 Telephone (504) 585-3800 Telecopier (504) 585-3801

ENTRY NO. 251325 RECORDED IN MORTGAGE BOOK 914 AT FOLIO 295
 May 8, 2002

St. Mary Parish Council
 Fifth Floor- Courthouse
 Franklin, Louisiana 70538-6198

JUN 06 2002

Re: Property Bordering the Harold J. "Babe" Landry Landfill
 Berwick, St. Mary Parish, Louisiana

Gentlemen:

Emerald Land Company understands that the Louisiana Department of Environmental Quality (LDEQ), in accordance with LAC VII.709.B.2.a, requires a 200-foot buffer zone between a solid waste disposal facility and the adjacent property line. Emerald Land Company hereby agrees to waive its rights to that buffer zone with respect to the Harold J. "Babe" Landry Landfill, and further agrees to have no buffer zone with respect to the Harold H. "Babe" Landry Landfill, and further agrees to have no buffer zone between the facility and all Emerald Land Company property lines adjacent to the facility.

Best regards,

Emerald Land Company

Michael A. Fogarty
 Michael A. Fogarty
 President

STATE OF LOUISIANA

PARISH OF ORLEANS

Before me, a Notary Public in and for the State and Parish mentioned, personally came and appeared Michael A. Fogarty, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and to who, upon oath, acknowledge such person to be the within bargainer, and that as such bargainer executed the foregoing instrument for the purpose therein contained, by signed the above instrument.

Witness my hand and seal in New Orleans, Louisiana, this 6th day of May, 2002.

[Signature]
 NOTARY PUBLIC

My commission expires at death.

CLERK'S OFFICE, FRANKLIN, LA

Received and filed for
 recordation at 10:55 A.M.
 on JUN 06 2002

[Signature]
 Dy. Clerk of Court

Exhibit 2

Louisiana Pollutant Discharge Elimination System Permit



PERMIT NUMBER: LA0056227
AGENCY INTEREST NO: AI 9340
PER NUMBER: 20010001

OFFICE OF ENVIRONMENTAL SERVICES

Water Discharge Permit

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

St. Mary Parish Government
Harold J "Babe" Landry Landfill
5th Floor, Courthouse
Franklin, LA 70538

Type Facility: municipal solid waste landfill serving St. Mary Parish, lower St. Martin Parish, and a small population of Iberia and Terrebonne Parish

Location: 752 Thorguson Drive in Franklin, St. Mary Parish

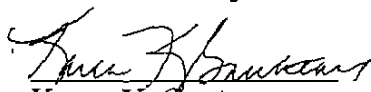
Receiving Waters: Berwick Drainage Canal

to discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III attached hereto.

This permit shall become effective on *June 1, 2004*

This permit and the authorization to discharge shall expire five (5) years from the effective date of the permit.

Issued on *May 14, 2004*


Karen K. Gautreaux
Deputy Secretary

PART I

Page 2 of 5

LA0056227; AI9340

Permit Activity Number 20010001

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through the expiration date of the permit the permittee is authorized to discharge from:

Outfall 001, located at the south side of the oxidation pond, Lat. 29°40'28", Long. 91°14'37" treated leachate and treated contact stormwater (estimated flow is 0.0288 MGD).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>			<u>Monitoring Requirements</u>	
		(lbs/day)	other units (specify)			
	Storet <u>Code</u>	<u>Monthly Avg.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency^{1/}</u>	<u>Sample Type</u>
Flow-MGD	50050	---	Report	Report	Daily	Estimate
BOD ₅	00310	---	30 mg/l	45 mg/l	1/2weeks	Grab
TSS	00530	---	90 mg/l	135 mg/l	1/2weeks	Grab
TOC	00082	---	---	50 mg/l	1/2weeks	Grab
Oil&grease	00552	---	---	15 mg/l	1/2weeks	Grab
Chlorides	01002	---	---	250 mg/l	1/2weeks	Grab
Sulfates	01007	---	---	250 mg/l	1/2weeks	Grab
Ammonia-Nitrogen	00610	---	4.9 mg/l	10 mg/l	1/2weeks	Grab
Fecal Coliform colonies/100ml H	74055	---	200	400	1/2weeks	Grab
pH (Standard Units)***	00400	---	---	---	1/2weeks	Grab
Priority Pollutant Scan†	57168	---	---	Report ug/l	1/6 months	Grab
		(lbs/day)	other units (specify)			
	Storet <u>Code</u>	<u>Monthly Avg.</u>	<u>Monthly Avg.</u>	<u>Daily Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Alpha Terpineol	51045	---	0.016 mg/l	0.033 mg/l	1/Quarter	Grab
Benzoic Acid	77247	---	0.071 mg/l	0.12 mg/l	1/Quarter	Grab
p-Cresol	77146	---	0.014 mg/l	0.025 mg/l	1/Quarter	Grab
Zinc	01092	---	0.11 mg/l	0.20 mg/l	1/Quarter	Grab
Phenol	34694	---	0.015 mg/l	0.026 mg/l	1/Quarter	Grab
QUALITY (PERCENT % UNLESS STATED)						
		<u>30-Day Avg. Min.</u>	<u>7-Day Min.</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
Whole Effluent Toxicity Testing 48-Hour Acute NOEC I	STORET: 22414					
<u>Daphnia Pulex</u>	10%		10%			
STORET: TEM3D ^{2/}	Report		Report		1/Quarter	24-Hr. Composite
STORET: TOM3D	Report		Report		1/Quarter	24-Hr. Composite

PART I

Page 3 of 5

LA0056227; A19340

Permit Activity Number 20010001

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

QUALITY (PERCENT % UNLESS STATED)

	<u>30-Day Avg. Min.</u>	<u>7-Day Min.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Whole Effluent Toxicity Testing				
48-Hour Acute NOEC I	STORET: 22414			
<u>Pimephales promelas</u>	10%	10%		
STORET: TEM6C ^{2/}	Report	Report	1/Quarter	24-Hr. Composite
STORET: TOM6C	Report	Report	1/Quarter	24-Hr. Composite

^{1/} When discharging.^{2/} Species Quality Reporting Units: Pass = 0, Fail = 1

I See Part II, Section D, Whole Effluent Toxicity Testing Requirements.

H See Part II, Section A, Paragraph 8.

† See Part II, Section B, Priority Pollutant Scan.

*** The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location:

Outfall 001, at the point of discharge from the last treatment unit prior to mixing with other waters.

PART I

Page 4 of 5

LA0056227; A19340

Permit Activity Number 20010001

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through the expiration date of the permit the permittee is authorized to discharge from:

Outfall 002, located on the north side of the administration building, Lat. 29°40'53", Long. 91°14'05" treated sanitary wastewater, and equipment washwater (estimated flow is 0.001 MGD).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>			<u>Monitoring Requirements</u>	
		(lbs/day)	other units (specify)		Measurement	Sample
	Storet <u>Code</u>	<u>Monthly Avg.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Frequency</u> ^{1/}	<u>Type</u>
Flow-MGD	50050	---	Report	Report	Daily	Estimate
BOD ₅	00310	---	---	45 mg/l	1/month	Grab
TSS	00530	---	---	45 mg/l	1/month	Grab
Oil & Grease	00552	---	---	15 mg/l	1/month	Grab
Fecal Coliform						
colonies/100ml H	74055	---	---	400	1/month	Grab
Soaps and detergents ^{2/}		---	---	Report	1/month	Grab
pH (Standard Units)**	00400	---	---	---	1/month	Grab

^{1/} When discharging.

^{2/} Each type of soap and/or detergent shall be listed separately on the DMR along with the total amount of each used during the monitoring period. Additionally, a MSDS for each material used shall be submitted with the DMR.

^{1/} See Part II, Section A, Paragraph 8.

** The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

There shall be no discharge of floating solids or visible foam in other than trace amounts. No evidence or presence of a sheen shall be observed in the effluent discharge.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location:

Outfall 002, at the point of discharge from the last treatment unit prior to mixing with other waters.

PART I

Page 5 of 5

LA0056227; AI9340

Permit Activity Number 20010001

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through the expiration date of the permit the permittee is authorized to discharge from:

Outfall 004, located at the southwest corner of Area I, Lat. 29°40'46", Long. 91°14'47" non-contact stormwater (estimated flow is 11.7 MGD).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>			<u>Monitoring Requirements</u>	
		(lbs/day)	other units (specify)		Measurement	Sample
	Storet Code	Monthly Avg.	Monthly Avg.	Daily Max.	Frequency ^{1/}	Type
Flow-MGD	50050	---	Report	Report	Daily	Estimate
OC	00082	---	---	50 mg/l	1/month	Grab
Oil & Grease	00552	---	---	15 mg/l	1/month	Grab
Total Recoverable Iron	01045	---	---	Report mg/l	1/quarter	Grab
Total Barium	01007	---	---	Report mg/l	1/quarter	Grab
pH (Standard Units)**	00400	---	---	---	1/week	Grab

^{1/} When discharging.

^{**} The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location:

Outfall 004, at the point of discharge prior to mixing with other waters.

LA0056227; AI9340

Permit Activity Number 20010001

PART II

OTHER REQUIREMENTS

In addition to the standard conditions required in all permits and listed in Part III, the office has established the following additional requirements in accordance with the Louisiana Water Quality Regulations.

SECTION A. GENERAL STATEMENTS

1. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon water quality studies. These studies may indicate the need for more advanced wastewater treatment. Studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5 mg/l CBOD₅, and 2 mg/l NH₃-N. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.
2. Please be aware that the Department will be conducting a TMDL in the Atchafalaya River Basin scheduled for completion in 2009. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.
3. This permit does not in any way authorize the permittee to discharge a pollutant not listed or quantified in the application or limited or monitored for in the permit.
4. Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damage to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.
5. For definitions of monitoring and sampling terminology see Part III, Section F.
6. 24-hour Oral Reporting: Daily Maximum Limitation Violations

Under the provisions of Part III Section D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

Pollutants: None

Part II

Page 2 of 22

LA0056227/AI9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

7. The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule:

EFFECTIVE DATE OF THE PERMIT

8. Please be aware, concentrations of Total Residual Chlorine above 0.01 mg/L can cause or contribute to significant toxicity in receiving streams and biomonitoring testing. It is the permittee's responsibility to assure that no Total Residual Chlorine remains in the effluent after dechlorination in order to prevent toxicity in the receiving stream and in whole effluent toxicity testing.
9. The original DMR signed and certified as required by LAC 33:IX.2503.B, and all other reports required by this permit shall be submitted to the Permits Compliance Unit, and a copy of the DMR and all other reports required by this permit shall also be submitted to the appropriate LDEQ regional office at the following addresses:

Department of Environmental Quality
Office of Environmental Compliance
Enforcement Division
Post Office Box 4312
Baton Rouge, Louisiana 70821-4312
Attention: Permit Compliance Unit

Acadiana Regional Office
Office of Environmental Compliance
Surveillance Division
111 New Center Drive
Lafayette, Louisiana 70508

Part II

Page 3 of 22

LA0056227/AI9340

Permit Activity Number 20010001.

OTHER REQUIREMENTS (continued)

SECTION B. POLLUTANT SCAN

This Office has established a list of priority pollutants with threshold values intended as action levels. Should a substance exceed the level of the established value in Part II, Section B.3., the permittee shall notify the Office of Environmental Services of the exceedance, in writing, within five (5) days. At this time the St. Mary Parish Government – Harold J “Babe” Landry Landfill shall institute a study to determine the source of the exceedance. Within sixty (60) days of the written notification the permittee shall submit a written account of the nature of the study, and measures being taken to secure abatement. Failure to comply with any provision of this paragraph shall constitute a violation of this permit. The Department reserves the right to establish effluent limitations for any of the parameters listed below based upon the results of submitted analyses.

1. 40 CFR Part 136 Analytical Requirements

Unless otherwise specified in this permit, monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed at 40 CFR Part 136 in effect on the effective date of this permit. Appendices A, B, and C to Part 136 are specifically referenced as part of this requirement. Amendments to 40 CFR Part 136 promulgated after the effective date of this permit shall supersede these requirements as applicable. The permittee may use other EPA approved test methods that provide more sensitive test results than those referenced in the permit.

2. Minimum Quantification Levels

If any individual analytical test result is less than the minimum quantification level (MQL) listed below, a value of zero (0) may be used as the test result for those parameters for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

3. Priority Pollutant List

Chemical	Threshold Value ug/l	MQL Required ug/l	Test Method Required
METALS, CYANIDE, AND TOTAL PHENOLS			
Antimony	600	60	200.7
Arsenic	100	10	206.2
Beryllium	100	5	200.7

Part II

Page 4 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MQL Required ug/l	Test Method Required
METALS, CYANIDE, AND TOTAL PHENOLS (continued)			
Cadmium	100	1	213.2
Chromium III	100	10	200.7
Chromium VI	100	10	200.7
Copper	500	10	220.2
Cyanide	100	20	335.2
Lead	150	5	239.2
Mercury	5.8	0.2	245.1
Nickel (Freshwater)	500	40	200.7
Selenium	100	5	270.2
Silver	100	2	272.2
Thallium	100	10	279.2
Zinc	1000	20	289.2
Total Phenols**	50	5	420.1
VOLATILE COMPOUNDS			
Acrolein	100	50	624
Acrylonitrile	100	50	624

Part II

Page 5 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MLQ Required ug/l	Test Method Required
VOLATILE COMPOUNDS (continued)			
Benzene	100	10	624
Bromodichloromethane	100	10	624
Bromoform	100	10	624
Carbon Tetrachloride	100	10	624
Chlorobenzene	100	50	624
Chloroethane	100	10	624
2-Chloroethyl vinyl ether	100	50	624
Chloroform	100	10	624
Dibromochloromethane	100	10	624
1,1-Dichloroethane	100	10	624
1,2-Dichloroethane	100	10	624
1,1-Dichloroethylene {1,1-dichloroethene}	100	10	624
1,2-Dichloropropane	100	10	624
1,3-Dichloropropene {1,3-Dichloropropylene}	100	10	624
Ethylbenzene	100	10	624

Part II

Page 6 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MQL Required ug/l	Test Method Required
VOLATILE COMPOUNDS (continued)			
Methyl Bromide {Bromomethane}	100	50	624
Methyl Chloride {Chloromethane}	100	50	624
Methylene Chloride	100	20	624
1,1,2,2-Tetra-chloroethane	100	10	624
Tetrachloroethylene	100	10	624
Toluene	100	10	624
1,2-trans-Dichloroethylene {1,2-dichloroethene}	100	10	624
1,1,1-Trichloroethane	100	10	624
1,1,2-Trichloroethane	100	10	624
Trichloroethylene {Trichloroethene}	100	10	624
Vinyl Chloride	100	10	624
ACID COMPOUNDS			
2-Chlorophenol {o-Chlorophenol}	100	10	625
2,4-Dichlorophenol	100	10	625

Part II

Page 7 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MLQ Required ug/l	Test Method Required
ACID COMPOUNDS (continued)			
2,4-Dimethylphenol	100	10	625
2,4-Dinitrophenol	100	50	625
4,6-Dinitro-o-Cresol {4,6-Dinitro-o-phenol} {4,6-Dinitro-2-methyl phenol}	100	50	625
2-Nitrophenol	100	20	625
4-Nitrophenol	100	50	625
P-Chloro-M-Cresol	100	10	625
Pentachlorophenol	100	50	625
Phenol	100	10	625
2,4,6-Trichlorophenol	100	10	625
PESTICIDES			
Aldrin	0.03	0.05	608
Chlordane	0.142	0.2	608
DDD	0.202	0.1	608
DDE	0.143	0.1	608
DDT	0.172	0.1	608

Part II

Page 8 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MQL Required ug/l	Test Method Required
PESTICIDES (continued)			
Dieldrin	0.037	0.1	608
Endosulfan- α	0.056*	0.1	608
Endosulfan- β	0.056*	0.1	608
Total Endosulfan	0.109	0.1	608
Endosulfan sulfate	10	0.1	608
Endrin	0.973	0.1	608
Endrin aldehyde	10	0.1	608
Heptachlor	0.053	0.05	608
Heptachlor Epoxide	10	0.05	608
Hexachlorocyclohexane- α (BHC- α)	10	0.05	608
Hexachlorocyclohexane- β (BHC- β)	10	0.05	608
Hexachlorocyclohexane- δ (BHC- δ)	10	0.05	608
Hexachlorocyclohexane- γ (Lindane)	10	0.05	608
Total PCB's	*There shall be no discharge of polychlorinated biphenyls (PCB's)*		
Toxaphene	0.03	5.0	608

Part II

Page 9 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MQL Required ug/l	Test Method Required
BASE/NEUTRAL COMPOUNDS			
Acenaphthene	100	10	625
Acenaphthylene	100	10	625
Anthracene	100	10	625
Benzenzene	100	50	625
Benzo(a)anthracene	100	10	625
3,4-Benzofluoranthene {Benzo(b)fluoranthene}	100	10	625
Benzo(k)fluoranthene	100	10	625
Benzo(a)pyrene	100	10	625
Benzo(ghi)perylene	100	20	625
Benzyl butyl Phthalate {Butyl benzyl Phthalate}	100	10	625
Bis(2-chloroethyl) ether	100	10	625
Bis(2-chloroethoxy) methane	100	10	625
Bis(2-ethylhexyl) Phthalate	100	10	625
Bis(2-chloroisopropyl) ether	100	10	625

Part II

Page 10 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MLQ Required ug/l	Test Method Required
BASE/NEUTRAL COMPOUNDS (continued)			
4-Bromophenyl phenyl ether	100	10	625
2-Chloronaphthalene	100	10	625
4-Chlorophenyl phenyl ether	100	10	625
Chrysene	100	10	625
Dibenzo (a,h) anthracene	100	20	625
Di-n-Butyl Phthalate	100	10	625
1,2-Dichlorobenzene	100	10	625
1,3-Dichlorobenzene	100	10	625
1,4-Dichlorobenzene {p-Dichlorobenzene}	100	10	625
3,3-Dichlorobenzidine	100	50	625
Diethyl Phthalate	100	10	625
Dimethyl Phthalate	100	10	625
2,4-Dinitrotoluene	100	10	625
2,6-Dinitrotoluene	100	10	625
Di-n-octyl Phthalate	100	10	625

Part II

Page 11 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

Chemical	Threshold Value ug/l	MQL Required ug/l	Test Method Required
BASE/NEUTRAL COMPOUNDS (continued)			
1,2-Diphenylhydrazine	100	20	625
Fluoranthene	100	10	625
Fluorene	100	10	625
Hexachlorobenzene	0.187	10	625
Hexachlorobutadiene	57.5	10	625
Hexachlorocyclopentadiene	100	10	625
Hexachloroethane	100	20	625
Ideno (1,2,3-cd) pyrene	100	20	625
Isophorone	100	10	625
Naphthalene	100	10	625
Nitrobenzene	100	10	625
N-nitrosodimethylamine	100	50	625
N-nitrosodiphenylamine	100	20	625
N-nitrosodi-n-propylamine	100	20	625
Phenanthrene	100	10	625
Pyrene	100	10	625
1,2,4-Trichlorobenzene	100	10	625

Part II

Page 12 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

5. Effluent Specific Minimum Quantification Levels

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR Part 136. For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send the Department of Environmental Quality a report containing the QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent MDL was correctly calculated. An effluent specific MQL shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

Upon written approval from DEQ, the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

Part II

Page 13 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

SECTION C. STORMWATER PROVISIONS

STORMWATER DISCHARGES

- A. This section applies to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow.
- B. Any runoff leaving the developed areas of the facility, other than the permitted outfall(s), exceeding 50 mg/L TOC, 15 mg/L Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination shall not be considered a violation of this permit. A visual inspection of the facility shall be conducted and a report made annually as described in Paragraph 4 below.
- C. The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. EPA document 833-R-92-002 (Storm Water Management for Industrial Activities) may be used as a guidance and may be obtained by writing to the U.S. Environmental Protection Agency, Office of Water Resources (RC-4100), 401 M Street, S.W., Washington D.C. 20460 or by calling (202) 260-7786.
- D. The following conditions are applicable to all facilities and shall be included in the SWP3 for the facility.
 - 1. The permittee shall conduct an annual inspection of the facility site to identify areas contributing to the storm water discharge from developed areas of the facility and evaluate whether measures to reduce pollutant loadings identified in the SWP3 are adequate and have been properly implemented in accordance with the terms of the permit or whether additional control measures are needed.
 - 2. The permittee shall develop a site map which includes all areas where stormwater may contact potential pollutants or substances which can cause pollution. Any location where reportable quantities leaks or spills have previously occurred are to be documented in the SWP3. the SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure

Part II

Page 14 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

stormwater precipitation will not directly contact the substances and result in contaminated runoff.

3. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.
4. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3 and the permit, and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspector(s), conditions found, and changes to be made to the SWP3.
5. The summary report and the following certification shall be signed in accordance with LAC 33:IX.2333. The summary report is to be attached to the SWP3 and provided to the Department upon request.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signatory requirements for the certification may be found in Part III, Section D.10 of this permit.

6. The permittee shall make available to the Department, upon request, a copy of the SWP3 and any supporting documentation.

E. The following shall be included in the SWP3, if applicable.

1. The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:

Part II

Page 15 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

- a) maintaining adequate roads and driveway surfaces;
 - b) removing debris and accumulated solids from the drainage system; and
 - c) cleaning up immediately any spill by sweeping, absorbent pads, or other appropriate methods.
2. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.
3. All waste fuel, lubricants, coolants, solvents, or other fluids used in the repair or maintenance of vehicles or equipment shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.
4. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.
5. All storage tank installations (with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area) shall be constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.
6. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. All drains from diked areas shall be equipped with valves which shall be kept in the closed condition except during periods of supervised discharge.
7. All check valves, tanks, drains, or other potential sources of pollutant releases shall be inspected and maintained on a regular basis to assure their proper operation and to prevent the discharge of pollutants.

Part II

Page 16 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

8. The permittee shall assure compliance with all applicable regulations promulgated under the Louisiana Solid Waste and Resource Recovery Law and the Hazardous Waste Management Law (L.R.S. 30:2151, etc.). Management practices required under above regulations shall be referenced in the SWP3.
9. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
10. If the SWP3 proves to be ineffective in achieving the general objectives of preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

F. Facility specific SWP3 Conditions:

1. **Drainage Area Site Map.** Identify locations of the following activities where such activities are exposed to precipitation / runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, leachate collection and handling systems.
2. **Summary of Potential Pollutant Sources.** A narrative description of the potential pollutant associated with any of the following: fertilizer, herbicide and pesticide application; earth/soil moving; waste hauling and loading/unloading; outdoor storage of significant materials including daily, interim and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; failure or leaks from leachate collection and treatment systems
3. **Good Housekeeping Measures.** As part of your good housekeeping program, consider providing protected materials storage areas for pesticides, herbicides, fertilizer, and other significant materials.
4. **Preventative Maintenance Program.** This program must also maintain: 1) containers used for outdoor chemical and significant materials storage to prevent leaking or rupture; 2) all elements of leachate collection and treatment systems to prevent commingling of leachate with storm water; 3) the integrity and effectiveness of any

Part II

Page 17 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

intermediate or final cover (including repairing the cover as necessary to minimize the effects of settlement, sinking and erosion).

5. **Inspections of Active Sites:** for operating landfills, open dumps, and land application sites, inspections must be conducted at least once every 7 days. Qualified personnel must inspect areas of landfills that have not yet been finally stabilized, active land application areas, areas used for storage of material / wastes that are exposed to precipitation, stabilization and structural control measures, leachate collection and treatment systems, and locations where equipment and waste trucks enter and exit the site. Ensure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed, conduct inspections at least once every month.
6. **Sediment and Erosion Control Plan:** Provide temporary stabilization (e.g., consider temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles): for materials stockpiled for daily, intermediate and final cover; inactive areas of the landfill or open dump; any landfill or open dump area that has received a final cover until vegetation has established itself; and where waste application has been completed at land application sites but final vegetation has not yet been established.
7. Include plans for the possibility for and control of the upward and lateral seepage of leachate. As a part of the plans, a method of prediction (estimation) of the direction of flow, rate of flow, and total quantity of storm water being contaminated by toxic pollutants reaching the surface through the process of seepage.
8. Include an outline plan of action to address pollutants which exceed the threshold criteria of the priority pollutants (Part II, Section B. 3.).

Part II

Page 18 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

SECTION D. WHOLE EFFLUENT TOXICITY LIMITS (48-HR. ACUTE NOEC: FRESHWATER)

1. SCOPE AND METHODOLOGY

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S):	001
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	10%
EFFLUENT DILUTION SERIES (%):	4%, 5%, 7%, 10%, and 13%
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia Pulex acute static renewal 48-hour definitive toxicity testing using EPA/600/4-90/027F, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA/600/4-90/027F, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur.
- c. When the testing frequency stated above is less than monthly and the effluent fails the survival endpoint at or below the critical dilution, the permittee shall be considered in violation of this permit limit and the frequency for the affected species will increase to monthly until such time compliance with the Lethal No Observed Effluent Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in Part I of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.
- d. This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.
- e. Test failure is defined as a demonstration of statistically significant sub-lethal or lethal effects to a test species at or below the effluent critical dilution.

Part II

Page 19 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

2. REQUIRED TOXICITY TESTING CONDITIONSa. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Daphnia pulex survival test and fathead minnow survival test.
- iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution unless significant lethal effects are exhibited for the Daphnia pulex and/or fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

- i. For the Daphnia pulex and Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/600/4-90/027F, or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 2.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 3 below.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness and alkalinity to the closest downstream perennial water where the receiving stream is classified as intermittent or where the receiving stream has no flow due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 2.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met

Part II

Page 20 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)
the following stipulations:

- (A) a synthetic dilution water control which fulfills the test acceptance requirements of item 2.a was run concurrently with the receiving water control;
- (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
- (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 3.a below; and
- (D) the synthetic dilution water shall have a pH, hardness and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

- i. The permittee shall collect two flow-weighted 24-hour composite samples from the outfall(s) listed at item 1.a above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.
- ii. The permittee shall collect a second 24-hour composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the 24-hour composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first 24-hour composite sample. Samples shall be chilled to 4 degrees Centigrade during collection, shipping and/or storage.
- iii. The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.

Part II

Page 21 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

3. REPORTING

- a. A valid test must be submitted during each reporting period. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA/600/4-90/027F, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part III.C of this permit. For any test which fails, is considered invalid, or which is terminated for any reason, the full report must be submitted for agency review. The permittee shall submit the first full report to:

Department of Environmental Quality
Office of Environmental Compliance
P. O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

- b. The permittee shall report the Whole Effluent Lethality values for the 30-Day Average Minimum and the 48-Hr. Minimum under Parameter No. 22414 on the DMR for that reporting period in accordance with Part III.D of this permit.

If more than one valid test for a species was performed during the reporting period, the test NOECs will be averaged arithmetically and reported as the DAILY AVERAGE MINIMUM NOEC for that reporting period.

Part II

Page 22 of 22

LA0056227/AI 9340

Permit Activity Number 20010001

OTHER REQUIREMENTS (continued)

If more than one species is tested during the reporting period, the permittee shall report the lowest 30-Day Average Minimum NOEC and the lowest 48-Hr. Minimum NOEC for Whole Effluent Lethality.

A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for LDEQ review.

- c. The permittee shall submit the results of the valid toxicity test on the DMR for that reporting period in accordance with Part III.D of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR. The permittee shall submit the Table I summary sheet with each valid test.

i. Pimephales promelas (Fathead minnow)

- A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
- B. Report the NOEC value for survival, Parameter No. TOM6C.

ii. Daphnia pulex

- A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
- B. Report the NOEC value for survival, Parameter No. TOM3D.

The permittee shall submit the toxicity testing information contained in Table I of this permit with the DMR subsequent to each and every toxicity test reporting period. The DMR and the summary table should be sent to the address indicated in 4.a. The permittee is not required to send the first complete report nor summary tables to EPA.

TABLE 1

SUMMARY SHEET
Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST

PERMITTEE: _____
 FACILITY SITE: _____
 NPDES PERMIT NUMBER: _____ WP PERMIT NUMBER: _____
 OUTFALL IDENTIFICATION: _____
 OUTFALL SAMPLE IS FROM _____ SINGLE _____ MULTIPLE DISCHARGE
 BIOMONITORING LABORATORY: _____
 DILUTION WATER USED: _____ RECEIVING WATER _____ LAB WATER
 CRITICAL DILUTION _____ % DATE TEST INITIATED _____

1. LOW-FLOW NON-LETHALITY:

Is the mean number of young produced per female significantly less ($p=0.05$) than the control's number of young per female for the low-flow or critical dilution? _____ yes _____ no

2. LOW-FLOW LETHALITY:

Is the mean survival at 7 days significantly less ($p=0.05$) than the control survival at the low-flow or critical dilution? _____ yes _____ no

3. Are the test results to be considered valid? _____ yes _____ no

If X no (test invalid), what reasons for invalidity?

4. Is this a retest of a previous invalid test? _____ yes _____ no

Is this a retest of a previous test failure? _____ yes _____ no

5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Ceriodaphnia:

a. NOEC REPRODUCTION = _____ % effluent

b. NOEC SURVIVAL = _____ % effluent

PERCENT SURVIVAL-CERIODAPHNIA

TIME OF READING	PERCENT EFFLUENT					
	0 %	%	%	%	%	%
24-HOUR						
48-HOUR						
7-DAY						

EV. 3/15/04)

LA0056227/A19340

PAGE 1 OF PART III

PART III
STANDARD CONDITIONS FOR LPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Introduction

In accordance with the provisions of LAC 33:IX.2701, et. seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions

a. LA. R. S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. LA. R. S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details).

b. Any person may be assessed an administrative penalty by the State Administrative Authority under LA. R. S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants

a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply

a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.

b. General Permits. General permits expire five years after the effective date. Unless otherwise specified in the general permit, or notified by the Secretary or his designee, a permittee must submit an NOI/application for the permitted activity.

6. Permit Action

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The causes may include, but are not limited to, the following:

(REV. 3/15/04)

LA0056227/AI9340

PAGE 2 OF PART III

- a. Noncompliance by the permittee with any condition of the permit;
- b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant acts, or the permittee's misrepresentation of any relevant facts at any time;
- c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;
- d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge; or
- e. Failure to pay applicable fees under the provisions of LAC 33: IX. Chapter 13;
- f. Change of ownership or operational control;

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information

The permittee shall furnish to the state administrative authority, within a reasonable time, any information which the state administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the state administrative authority, upon request, copies of records required to be kept by this permit.

9. Criminal and Civil Liability

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to La. R.S. 30:2025.

10. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

11. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Severability

If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

13. Dilution

A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

(REV. 3/15/04)

LA0056227/AI9340

PAGE 3 OF PART III

SECTION B. PROPER OPERATION AND MAINTENANCE

1. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Proper Operation and Maintenance

a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

4. Bypass of Treatment Facilities

a. Bypass. The intentional diversion of waste streams from any portion of a treatment facility.

b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section B.4.c. and 4.d of these standard conditions.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Permits Division, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6, (24-hour notice) and Section D.6.e. of these standard conditions.

d. Prohibition of bypass

(1) Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This back-up equipment should have been installed in the exercise of

(c) The permittee submitted notices as required by Section B.4.c of these standard conditions.

- (2) The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

5. Upset Conditions

- a. Upset. An exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section B.5.c. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated; and
 - (3) The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii. and Section D.6.e.(2) of these standard conditions; and
 - (4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.
- d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.

7. Percent Removal

For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3. and B.3.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry

The permittee shall allow the state administrative authority, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action; and

- b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.

e. Sample Collection

- (1) When the inspector announces that samples will be collected, the permittee will be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.
- (2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a. above) and the inspector shall supply the permittee with a duplicate sample.

- f. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit shall not be grounds for delaying the initiation of an inspection except in situations as described in Section C.1.b. of these standard conditions. The permittee shall be responsible for providing witnesses/escorts during inspections. Inspectors shall abide by all company safety rules and shall be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.

- g. Upon written request copies of field notes, drawings, etc., taken by department personnel during an inspection shall be provided to the permittee after the final inspection report has been completed.

2. Representative Sampling

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the outfall location(s) indicated in the permit. The state administrative authority shall be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) will be subject to modification, revocation and reissuance in accordance with LAC 33:IX.2903.

3. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the state administrative authority at any time.

4. Record Contents

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The time(s) analyses were begun and ended
- e. The individual(s) who performed the analyses;
- f. The analytical techniques or methods used;
- g. The results of such analyses; and
- h. The results of all quality control procedures.

5. Monitoring Procedures

- a. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use or disposal, approved under 40 CFR part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in this permit. This includes procedures contained in the latest EPA approved edition of the following publications:

(1) "Standard Methods for the Examination of Water and Waste Water". This publication is available from the American Public Health Association, Publication Sales, P. O. Box 753, Waldorf, MD 20604-0573, Phone number (301) 893-1894, Fax number (301) 843-0159.

(2) "Annual Book of Standards, Vols 1101-1103, Water I, Water II, and Atmospheric Analysis". This publication is available from the American Society for Testing Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, Phone number (610) 832-9500.

(3) "Methods for Chemical Analysis of Water and Wastes, Revised, March 1983," U.S. Environmental Protection Agency, Analytical Quality Control Laboratory, Cincinnati, Ohio. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-84-128677.

- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. General sampling protocol shall follow guidelines established in the "Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982" U.S. Environmental Protection Agency. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-83-124503. General laboratory procedures including glassware cleaning, etc. can be found in the "Handbook for Analytical Quality Control in Water and Wastewater Laboratories, 1979," U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory. This publication is available from the Environmental Protection Agency, Phone number (513) 569-7562. Order by EPA publication number EPA-600/4-79-019.

6. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

- a. "A Guide to Methods and Standards for the Measurement of Water Flow, 1975," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number COM-75-10683.
- b. "Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-273 535.
- c. "NPDES Compliance Flow Measurement Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-82-131178.

7. Prohibition for Tampering: Penalties

- a. LA R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.
- b. LA R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non compliance.

8. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

9. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

10. Laboratory Accreditation

- a. LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:

- (1) Submitted on behalf of any facility, as defined in R.S.30:2004;
- (2) Required as part of any permit application;
- (3) Required by order of the department;
- (4) Required to be included on any monitoring reports submitted to the department;
- (5) Required to be submitted by contractor
- (6) Otherwise required by department regulations.

- b. The department laboratory accreditation program is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not accredited under these regulations will not be accepted by the department. Retesting of analysis will be required by an accredited commercial laboratory.

Where retesting of effluent is not possible (i.e. data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

- c. Regulations on the Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation, are available on the department website located at:

<http://www.deq.state.la.us/laboratory/index.htm>.

Questions concerning the program may be directed to (225) 765-0582.

SECTION D. REPORTING REQUIREMENTS

1. Facility Changes

The permittee shall give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under LAC 33:IX.2703.A.1.
- c. For Municipal Permits. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301, or 306 of the CWA if it were directly discharging those pollutants; and any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. Anticipated Noncompliance

The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit is not transferable to any person except after notice to the state administrative authority. The state administrative authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act or the Louisiana Environmental Quality Act. (See LAC 33:IX.2901; in some cases, modification or revocation and reissuance is mandatory.)

- a. Transfers by modification. Except as provided in LAC 33: IX.2901.B, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under LAC 33:IX.2903. A.2.b), or a minor modification made (under LAC 33:IX.2905) to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Louisiana Environmental Quality Act.
- b. Automatic transfers. As an alternative to transfers under LAC 33:IX.2901.A, any LPDES permit may be automatically transferred to a new permittee if:
 - (1) The current permittee notifies the state administrative authority at least 30 days in advance of the proposed transfer date in Section D.3.b.(2) below;
 - (2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
 - (3) The state administrative authority does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subsection may also be a minor modification under LAC 33:IX.2905. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Section D.3.b.(2) of these standard conditions.

4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Part I or Part II of this permit.

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) on the form specified in the permit. Preprinted DMRs are provided to majors/92-500's and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to:

Supervisor, Permit Compliance Unit
Office of Environmental Compliance
Post Office Box 4312
Baton Rouge, LA 70821-4312

Copies of blank DMR templates, plus instructions for completing them, and EPA's LPDES Reporting Handbook are available at the department website located at:

<http://www.deq.state.la.us/enforcement/index.htm>

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. Requirements for Notification

a. Emergency Notification

As required by LAC 33:I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Verbal Notification Procedures are listed in Section D.6.c. of these standard conditions.

A written report shall be provided within seven calendar days after the telephone notification. The report shall contain the information listed in Section D.6.d. of these standard conditions and any additional information in LAC 33:I.3925.B.

b. Prompt Notification

As required by LAC 33:I.3917, in the event of an unauthorized discharge which exceeds reportable quantity specified in LAC 33:I. Subchapter E, but does not cause an emergency condition, the discharger shall notify the Office of Environmental Compliance by e-mail utilizing the Incident Report Form and procedures found at www.deq.state.la.us/surveillance or by telephone within 24 hours after learning of the discharge. Otherwise, verbal notification should be made to the Office of Environmental Compliance at (225) 219-3640 during office hours or (225) 342-1234 after hours, weekends, and holidays.

- c. Information for Verbal Notifications. The following guidelines will be utilized as appropriate, based on the conditions and circumstances surrounding any unauthorized discharge, to provide relevant information regarding the nature of the discharge:
- (1) name of person making the notification and telephone number where any return calls from response agencies can be placed;
 - (2) name and location of facility or site where the unauthorized discharge is imminent or has occurred using common landmarks. In the event of an incident involving transport, include the name and address of transporter and generator;
 - (3) date and time the incident began and ended, or estimated time of continuation if discharge is continuing;
 - (4) extent of any injuries and identification of any known personnel hazards which response agencies may face;
 - (5) common or scientific chemical name, U.S. Department of Transportation hazard classification, and best estimate of amounts of any and all discharged pollutants;
 - (6) brief description of the incident sufficient to allow response agencies to formulate level and extent of response activity.
- d. Written Notification Procedures. Written reports for any unauthorized discharge that requires verbal notification under Section D.6.a. or 6.b., or that requires written notification under LAC 33:I.3925, will be submitted by the discharger to the department in accordance with this section within seven calendar days after the telephone notification. Written notification reports will include, but are not limited to, the following information:
- (1) name of person, company, or other party who is filing the written report;
 - (2) time and date of verbal notification, name of person making the notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;
 - (3) date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;
 - (4) details of the circumstances and events leading to any emergency condition, including incidents of loss of sources of radiation;
 - (5) common or scientific chemical name, the CAS number, U.S. Department of Transportation hazard classification, and best estimate of amounts of any and all discharge pollutants, including methodology for calculations and estimates;
 - (6) statement of actual or probable fate or disposition of the pollutant or source of radiation;
 - (7) remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.

Please see LAC 33:I.3925.B for additional written notification procedures.

e. Twenty-four Hour Reporting. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and; steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b.);
- (2) Any upset which exceeds any effluent limitation in the permit;
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G.).

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D.4., 5., and 6., at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

9. Discharges of Toxic Substances

In addition to the reporting requirements under Section D.1-8, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Office of Environmental Services, Permits Division as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant:
 - i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micro-grams per liter (500 µg/L) for 2,4 -dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC33:IX.2501.G.7; or
 - (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F.; or
 - ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant:
 - i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 µg/L);

(REV. 3/15/04)

LA0056227/AI9340

PAGE 13 OF PART III

- (2) One milligram per liter (1 mg/L) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
- (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F.; or

ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

10. Signatory Requirements

All applications, reports, or information submitted to the state administrative authority shall be signed and certified.

a. All permit applications shall be signed as follows:

- (1) For a corporation - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,
 - (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: DEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in Section D.10.a.(1)(a). The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section D.10.a.(1)(b). rather than to specific individuals.

- (2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively; or
- (3) For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the state administrative authority shall be signed by a person described in Section D.10.a., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described in Section D.10.a. of these standard conditions;
- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position; and,
- (3) The written authorization is submitted to the state administrative authority.

- c. Changes to authorization. If an authorization under Section D.10.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b. must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. Certification. Any person signing a document under Section D.10. a. or b. above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Availability of Reports

All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

- a. The name and address of any permit applicant or permittee;
- b. Permit applications, permits, and effluent data.
- c. Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITION1. Criminala. Negligent Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$50,000 per day of violation, or imprisonment of not more than two years, or both.

b. Knowing Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both.

c. Knowing Endangerment

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any of such provisions in a permit issued under the LPDES by the secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

d. False Statements

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the LPDES, shall, upon conviction, be subject to a fine of not more than \$10,000, or imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this Subsection, he shall be subject to a fine of not more than \$20,000 per day of violation, or imprisonment of not more than 4 years, or both.

2. Civil Penalties

The Louisiana Revised Statutes LA. R. S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the secretary, an assistant secretary, or the court, of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than \$27,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

(PLEASE NOTE: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

SECTION F. DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

1. "Clean Water Act" (CWA) means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended by Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et. seq.).
2. "Accreditation" means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.
3. "Administrator" means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.
4. "Applicable effluent standards and limitations" means all state and Federal effluent standards and limitations to which a discharge is subject under the Clean Water Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and prohibitions, and pretreatment standards.
5. "Applicable water quality standards" means all water quality standards to which a discharge is subject under the Clean Water Act.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Commercial Laboratory" means any laboratory that performs analyses or tests for third parties for a fee or other compensation, except those commercial laboratories accredited by the Department of Health and Hospitals in accordance with R.S.49:1001 et seq.
8. "Daily Discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.
9. "Daily Maximum" discharge limitation means the highest allowable "daily discharge" during the calendar month.
10. "Director" means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.
11. "Environmental Protection Agency" means the U.S. Environmental Protection Agency.
12. "Grab sample" means an individual sample collected in less than 15 minutes.
13. "Industrial user" means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
14. "LEQA" means the Louisiana Environmental Quality Act.

15. "Louisiana Pollutant Discharge Elimination System (LPDES)" means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

16. "Monthly Average" (also known as Daily Average), other than for fecal coliform bacteria, discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as a continuous record, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

The monthly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

17. "National Pollutant Discharge Elimination System" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.

18. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

19. "Sewage sludge" means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff, that are discharged to or otherwise enter a publicly owned treatment works.

20. "Treatment works" means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.

21. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

22. For fecal coliform bacteria, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

23. The term "MGD" shall mean million gallons per day.

24. The term "mg/L" shall mean milligrams per liter or parts per million (ppm).

25. The term "µg/L" shall mean micrograms per liter or parts per billion (ppb).

REV. 3/15/04)

LA0056227/AI9340

PAGE 18 OF PART III

26. "Weekly average", other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The weekly average for fecal coliform bacteria is the geometric mean of the daily discharges over a calendar week.
27. "12-hour composite sample" consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.
28. "6-hour composite sample" consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
29. "3-hour composite sample" consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
30. "24-hour composite sample" consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.

Exhibit 7
Proof of Legal Signatory Authority

RESOLUTION

A Resolution authorizing Paul P. Naquin, Jr., the President to execute a Permit Modification Application for the Harold J. "Babe" Landry Landfill.

BE IT RESOLVED, that Paul P. Naquin, Jr., President, St. Mary Parish, be and he is hereby authorized and directed, for and on behalf of the St. Mary Parish Council, to execute a Permit Modification Application to be submitted to the Louisiana Department of Environmental Quality, with said Application to contain such terms, conditions, and stipulations as he may best see fit, he being fully authorized in the premises.

ADOPTED AND APPROVED by the St. Mary Parish Council in regular session convened on this the 14th day of February 2007.

APPROVED:


ALBERT FOULCARD, CHAIRMAN
ST. MARY PARISH COUNCIL

ATTEST:

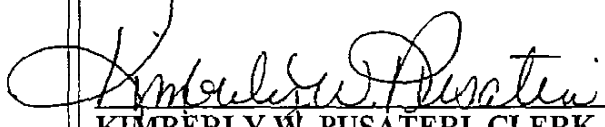

KIMBERLY W. PUSATERI, CLERK
ST. MARY PARISH COUNCIL

Exhibit 8

Addendum to Permit Applications per LAC 33:I.1701

Media Type (check one)


Hazardous Waste ☐ Air ☐
 Solid Waste ☒ Water ☐
 Radiation Licensing ☐

Agency Interest Number: 9340

Is this a copy of a previously submitted form? Yes ☒ No ☐

If yes, indicate the original submittal date: June 18, 2002

If yes, indicate the original permit number: P-0193

Department of Environmental Quality Permits Division P.O. Box 4313 Baton Rouge, LA 70821-4313 (225) 219-3181		Addendum to Permit Applications per LAC 33:I.1701			
Please Type Or Print	Company Name		<input checked="" type="checkbox"/> Owner	For Permits Division Use Only	
	St. Mary Parish Government		<input checked="" type="checkbox"/> Operator		
	Parent Company (If Company Name given above is a division)				
	Plant name (if any) Harold J. "Babe" Landry Landfill				
	Nearest town Berwick		Parish where located St. Mary		

1. Does the company or owner have federal or state environmental permits identical to, or of a similar nature to, the permit for which you are applying in other states? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

☒ Permits in Louisiana. List Permit Numbers: P-0316, P-0193R1, RCA-101-4523, LA 0056227

☐ Permits in other states (list states): None

2. Do you owe any outstanding fees or final penalties to the Department? No ☒ Yes ☐

If yes, please explain.

3. Is your company a corporation or limited liability company? No ☒ Yes ☐ If yes, attach a copy of your company's Certificate of Registration and/or Certificate of Good Standing from the Secretary of State.

Certification:

I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Addendum to the Permit Application, including all attachments thereto are true, accurate, and complete.

Responsible Official

Name	Paul P. Naquin, Jr.
Title	Parish President
Company	St. Mary Parish Government
Suite, mail drop, or division	
Street or P.O. Box	
Fifth Floor - Courthouse	

City	Franklin	State	LA	Zip	70538
Business phone					
337-828-4100 ext:500					
Signature of responsible official(s)					
<i>Paul P. Naquin, Jr.</i>					
Date					
1/29/07					

PART II
SUPPLEMENTARY INFORMATION

Exhibit 12 includes two letters from the U.S. Army Corps of Engineers and a wetlands determination map. The first, dated September 13, 1976, states that the site is not wetlands. The second, dated December 18, 1998 states that wetlands areas do occur on the proposed site of the facility expansion, but they have as yet not been delineated. The map presents the Wetlands Jurisdictional Determination issued by the Corps in 2001. St. Mary Parish has applied to the Corps for a Department of the Army permit under Section 404 of the Clean Water Act, but the Corps has not yet issued the permit. The Corps requires a letter of Technical Completeness from the LDEQ with respect to the Solid Waste Standard Permit Renewal Application prior to issuance of the Department of the Army permit under Section 404 of the Clean Water Act.

The La. Department of Culture, Recreation, and Tourism has indicated, by stamping the letter of request (see Exhibit 13), that "No known archaeological sites or historic properties will be affected by this undertaking."

Exhibit 14 is a letter from the La. Department of Natural Resources exempting the project from requirement of a Coastal Use Permit.

iii. a description of the measures planned to protect the areas listed from the adverse impact of operation at the facility;

As presented in the previous responses, the only anticipated impacts to sensitive environmental areas are the presence of wetlands and Louisiana Black Bear habitat on the proposed site. The facility will implement numerous plans and procedures to prevent any potentially detrimental effects of the facility that might impact the quality of these areas in the vicinity of the landfill.

In order to minimize the potential for impact on any Louisiana Black Bears in the vicinity of the proposed expansion, the active areas of the landfill property with putrescible waste will be surrounded by an electrified fence should foraging by bears become an issue. If required, the fence will consist of three strands of electrified wire. The location of the electrified fence is shown on Figure 7. This type of fence has been proven in similar applications to protect bears from any interaction with wastes in open cells. In addition, the smallest practicable working face will be maintained at all times, minimizing odors from the landfill, and the working face will be covered with daily and interim covers according to the requirements of LAC 33:VII.711.B.2.

In order to minimize the potential for impact on the wetlands adjacent to the site, St. Mary Parish has incorporated many water quality protective measures into the design and operation plans of the facility. Such measures include the waste and water management procedures identified in the Facility Operations Plan (Appendix B) designed to prevent any contact water or leachate from leaving the facility's berm system without proper treatment and monitoring. Additionally, a Stormwater Pollution Prevention Plan (SWPPP) has been developed for the facility and is on file in the facility's onsite offices.

521.B. FACILITY CHARACTERISTICS

Standards concerning facility characteristics are contained in LAC 33:VII.709.B (Type I and II facilities), LAC 33:VII.717.B (Type I-A and II-A facilities), and LAC 33:VII.719.B (Type III facilities). A facility plan, including Drawing Nos. and a narrative, describing the information required below must be provided.

1. The following information is required for all facilities:
 - a. elements of the process or disposal system employed, including, as applicable, property lines, original contours (shown at not greater than five-foot intervals), buildings, units of the facility, drainage, ditches and roads;

Solid waste handling and disposal processes are described in the Facility Operations Plan, included as Appendix B. The property lines and original contours of the site are shown on Figure 5, along with the existing waste cells and oxidation pond (LPDES Outfall 001), existing facility structures, access roads, and perimeter fencing and gates. Proposed master site improvements are shown on Figure 7. In general, these improvements include:

- The lateral expansion of the permitted waste disposal area, by construction of a Type I/II cell (Cell 4) adjacent to the existing landfill Cell 3A;
- The addition of access roads, drainage features, and electrical service required for the expansion; and
- The relocation of the existing Sewerage District force main to facilitate this expansion.

Additional details of the proposed site development are presented on Figures 23 through 46. Figure 30 depicts the facility's proposed stormwater drainage system and ditches, which incorporate to a great degree the existing system of drainage ditches.

- b. the perimeter barrier and other control measures;

Human trespass on the facility is prevented by means of a perimeter canal, combined with a chain link fence that is posted with signs prohibiting trespass on the facility. In addition to the above, the active portions of the landfill will be surrounded by an electrified fence to prevent intrusion of bears should foraging by bears become an issue. The only gate in the chain link fence is at the entry/weigh station, which is continuously manned during operating hours and locked during non-operating hours. At the entry is a sign that clearly states what types of waste are accepted at the facility, as well as a list of those wastes explicitly prohibited from disposal at the facility. Refer to the Master Site Improvements Plan (Figure 7).

PART III

ADDITIONAL SUPPLEMENTARY INFORMATION
(ENVIRONMENTAL ASSESSMENT STATEMENT)

**(INCLUDES RESPONSES TO REVISED EXPANDED "IT DECISION"
QUESTIONS AND SUPPORTING EXHIBITS)**

PART III

ADDITIONAL SUPPLEMENTARY INFORMATION (ENVIRONMENTAL ASSESSMENT STATEMENT)

(The form shall be completed in accordance with the instructions found in LAC 33:VII.523.)

523. Additional Supplementary Information

The following supplementary information is required for all solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation:

Response Format

Responses to all of the IT Questions are provided herein. The form of these questions is provided by the Solid Waste Regulations at LAC 33:VII.523.A-E, with guidance for content from the Louisiana Department of Environmental Quality's (LDEQ's) "Revised Expanded IT Questions" and Section 4.0 (Suggested IT response by the permit applicant) of LDEQ's "IT/BFD Guidance". Where appropriate, responses herein will reference particular responses included in Parts I and II (§519 and §521, respectively) of St. Mary Parish's (the Parish's) May 2002 Solid Waste Standard Permit Application for Type I/II/III Landfill & Solid Waste Standard Permit Modification Application for Type III Landfill, as proposed for modification by Solid Waste Standard Permit Modification Application No. 1-07, and portions of other previous applications relating to the site and other relevant documents in the LDEQ's possession. In addition, the May 2002 Solid Waste Standard Permit Application for Type I/II/III Landfill & Solid Waste Standard Permit Modification Application for Type III Landfill will be referred to throughout as the "2002 Permit Application", while the Solid Waste Standard Permit Modification Application No. 1-07 will be referred to throughout as "Modification No. 1-07". The various Appendices to the 2002 Permit Application (Appendix A - Groundwater Monitoring Plan, Appendix B - Facilities Operation Plan, Appendix C - Emergency Contingency Plan, Appendix D - Industrial Waste Acceptance Quality Assurance/Quality Control Plan, Appendix E - Geotechnical Reports, Appendix F - Design Calculations and Analysis Package, Appendix G - Construction Quality Assurance Plan, and Appendix H - Closure and Post-Closure Plan) will be referenced throughout this document; these appendices are included with the 2002 Permit Application, and where applicable, Modification No. 1-07, and are on file with LDEQ or included herein, respectively.

Please note that in this document, the terms "site," "landfill" and "facility" refer to the entire Harold J. "Babe" Landry Landfill, which includes Cells 3 (Type II), 3A (Type III), and 4 (Type I/II). The facility is also referred to throughout as the "St. Mary Parish Landfill". When referencing the individual cells, they will be addressed by cell name or waste type (i.e., "Cell 3A" or "Type III cell"). To date, Cell 3 is active and nearing capacity, Cell 3A is active, and Phase I of Cell 4 (eastern ½) has been constructed and has been approved by LDEQ to begin waste acceptance, but no waste has been received thus far. Phase II of Cell 4 will be constructed when required by filling of Phase I.

Introduction

An *Administrative Completeness Determination and Public Notice for Publication* letter was received by the Parish from LDEQ on April 16, 2007. In accordance with LDEQ's letter, this Environmental Assessment Statement is hereby submitted in compliance with Section 2018 of the Environmental Quality Act. In accordance with LAC 33:I.1505.A.4, Proof of Publication of Public Notice is attached to this document as Exhibit 19.

The Harold J. "Babe" Landry landfill is currently permitted as a Type I/II/III landfill, accepting Industrial (Type I), Municipal Solid Waste (Type II), and Construction and Demolition Debris (Type III). Modification No. 1-07 was submitted by Professional Engineering and Surveying Co., Inc. (PENSCO) and Turner Environmental, Inc. (TEI) on behalf of the St. Mary Parish Government to LDEQ on April 12, 2007. Modification No. 1-07 proposed the following changes:

- Extension of the permit expiration date to coincide with the ten-year anniversary of permit issue date;
- Authorization to accept regulated asbestos-containing material (RACM) waste into Type I/II Cell 4;
- Deferral for installation of electrified fence around the active areas of the landfill property; and
- Modification of the Parish's procedures for temporarily extending facility operation hours to accommodate increased waste intake quantities from severe weather events.

A brief summary of each change proposed by Modification No. 1-07 is provided below.

Extension of Permit Expiration Date

When the 2002 Permit Application was submitted, leasing negotiations between the Parish and facility landowner were ongoing. Therefore, the permit application was submitted with the lease that was in effect at that time. The expiration date for the old lease was December 31, 2009. Even though the permit was issued on October 4, 2002, the permit expiration date was set to coincide with the lease termination date.

A new lease has since been obtained for the facility property with an expiration date of December 31, 2035. Part I has been modified to reflect the new lease termination date. The new lease is attached to this document as Exhibit 20. Therefore, St. Mary Parish is requesting that the expiration date for its Permit No. P-0136R1 be extended to October 4, 2012, in accordance with LAC 33:VII.511.D.2.

Provide for Acceptance of RACM Waste

The St. Mary Parish Landfill's Industrial Waste Acceptance Quality Assurance/Quality Control Plan (Appendix D) has been modified to provide for acceptance of Regulated Asbestos-containing Material (RACM) waste, as defined under LAC 33:VII.5151 (Emission Standards for Asbestos). As detailed in Appendix D, RACM waste will only be accepted into Type I/II Cell 4. Deposition or storage of RACM waste in any other area of the facility will be strictly prohibited.

The requirements and conditions of LAC 33:III.5151.N (Standard for Active Waste Disposal Sites) and LAC 33:III.5151.K (Standard for Inactive Waste Disposal Sites) have been addressed by modifications to Appendix D and Appendix H (Closure and Post-closure Plan). In addition to LDEQ regulations, Occupational Safety and Health Administration (OSHA) requirements for personnel protection and employee training and notification have also been addressed and are presented in Appendix D.

Deferral for Electric Fence Installation

In the 2002 Permit Application, St. Mary Parish volunteered to install an electric fence around the active areas of the landfill property to minimize the potential for impact on any Louisiana Black Bears. The Parish still intends to install the fence, but requests that the installation date be deferred until such time that it may become necessary due to foraging by bears. Over the twenty-seven year history of operations at the facility, there have been no documented sightings of bears or bear sign on the site by facility personnel. If bears or bear sign are detected near the active areas of the landfill, St. Mary Parish will immediately take steps to install the electrified fence as detailed in the permit application.

Filling of Cell 3 (Type II) is nearing completion, and only non-putrescible waste (Type III) is deposited into Cell 3A; therefore, Cell 3A, and soon Cell 3, will not serve as an attractant to the potential local bear population. Once filling of Cell 4 is initiated, and if foraging by bears becomes an issue, the Parish will be in a better position to strategically locate the fence around the active area which will enable a more cost-effective installation and more efficient maintenance and operation of the fence. Part II (LAC 33:VII.521) has been modified to reflect this proposed change.

Modify Notification Procedures for Temporary Extension of Operating Hours

Section 9.1 of Appendix B (Facility Operations Plan) discusses operating procedures for weather related contingencies (i.e., severe weather events). The text proposed for modification addresses the extension of facility operating hours to handle increased waste volumes from cleanup after severe weather events. More specifically, the text proposed for modification states, "With LDEQ approval, operating hours may also be extended to accommodate increased waste streams after these events." It is proposed that the above

sentence be revised to state, "St. Mary Parish Landfill personnel will notify LDEQ if operating hours are temporarily extended to accommodate increased waste intake quantities after these events." The proposed change will allow the Landfill Manager more flexibility to service the needs of the facility's patrons in a timely manner, while still allowing LDEQ oversight of the facility's operations.

Environmental Assessment Overview

Prior to submitting the 2002 Permit Application, the expected remaining capacity of the active landfill area (Cells 3 and 3A) at the facility was three to five years. In order to continue to provide disposal service after this capacity was fully utilized, a westward horizontal expansion of the facility was proposed and approved by LDEQ. The expansion comprises land that is adjacent to the previously permitted Type III cell and leased by St. Mary Parish for this purpose. Based on filling the new 64-acre cell, Cell 4, to a nominal 50-foot elevation, the horizontal expansion has added approximately 38 years to the expected life of the landfill, based on current waste generation estimates. Future expansion space is also available at the site. The estimated date of final closure of Cells 3, 3A and 4 of the facility is 2045. This is based on a 38-year life expectancy for Cell 4, and assumes that waste placement in Cell 4 will begin in 2007. Due to this large quantity of available capacity which exists at an environmentally-sound, existing facility, one can only conclude that extension of the permit expiration date to coincide with the ten-year anniversary of permit issue date, in accordance with LAC 33:VII.511.D.2, is in the best interest of the environment and the citizens of Louisiana.

Faced with the eminent exhaustion of available landfill space at the pre-2002 facility, St. Mary Parish considered numerous alternatives to landfill expansion, including having all waste hauled out of the Parish by contract disposal companies, ultimately concluding that expansion of the landfill was the most environmentally sound, cost effective response to the situation. With respect to the economic aspects of the issue, St. Mary Parish's decision is supported by a Solid Waste Management Study¹ that was conducted by the Urban Waste Management and Research Center, UNO, and the Institute for Recyclable Materials, LSU, the applicable results of which are included here as Exhibit 21. Essentially, the report of the study concluded that local landfiling of all waste was the most cost effective choice for each of the Parishes in the Evangeline Economic Planning District. The Parish has concluded that the findings of this study are applicable to disposal of RACM waste as well. Additionally, St. Mary Parish's efforts at obtaining prices for hauling all waste to out-of-parish landfills indicated a large cost advantage to the Parish for expanding the landfill, rather than hauling out-of-parish to other existing landfills. Further consideration of the economic aspects of this choice is included in Section 523.B, below.

¹ See *Solid Waste Management Study, Volume I. Local Government Cost Analysis – Report for Evangeline Economic Planning District Council*, prepared by the Urban Waste Management and Research Center, UNO, and the Institute for Recyclable Materials, LSU, which is on file at LDEQ.

With respect to the environmental aspects of the choice to expand the landfill, St. Mary Parish had to consider not only whether landfilling of their waste was the superior option, but also whether some location other than the current one, including existing out-of-Parish sites, might be environmentally superior choices for a landfill. Despite the fact that the expansion utilized an area that contained wetlands, St. Mary Parish decided that the environmentally superior choice was to expand the landfill site, based on the superior geologic and hydro-geologic characteristics of the current site, total haul distances, the fact that a landfill already existed on the site, and various other criteria. These same criteria are also applicable to the present proposed modifications regarding extension of the facility's permit expiration date and request to begin acceptance of RACM waste.

In addition to project type and site options, St. Mary Parish considered the numerous mitigating measures available for reduction of the environmental risks associated with landfilling. Because of EPA Subtitle D regulations regarding landfilling of non-hazardous industrial and municipal solid waste, many highly effective measures are required, including advanced liner systems, groundwater monitoring systems, leachate collection and removal systems, and gas collection and venting systems, as well as design parameters that prevent flooding of the landfill. In addition to these measures that are required by EPA and LDEQ regulations, St. Mary Parish included other advanced mitigating measures in their design and operating plan, including the following:

- Utilization of an innovative, synthetic secondary liner in conjunction with a compacted clay liner to provide significantly greater protection against the migration of leachate than the sole use of a secondary compacted clay liner as required under the regulations;
- Utilization of innovative materials (geonet and geomembrane) in the final cover to reduce cover soil erosion and to minimize infiltration of rainwater into the waste, thus reducing leachate generation;
- Utilization of innovative water management techniques to keep precipitation from becoming contact water or leachate and to keep contact water and leachate separate, thereby reducing leachate generation; and
- Exploration of the feasibility of sustainable landfilling at this site, which would provide the many environmental advantages as noted in Section 523.C.

Further consideration of the environmental aspects of the project and their specific relevance to the changes proposed by Modification No. 1-07 is included in §§ 523.A, C, D, & E.

523.A. a discussion demonstrating that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible;

As a Type I/II/III landfill, the facility is permitted to accept three classifications of waste; non-hazardous industrial waste (Type I), Municipal Solid Waste (MSW, Type II), and construction and demolition debris (Type III). None of these categories includes hazardous or toxic wastes. Estimated total receipts of waste for the facility are 85,000 tons per year, all of which will be generated off-site for permanent landfill disposal at the facility. If not landfilled at this facility, these wastes would be trucked to another landfill for disposal, those most likely being Colonial Landfill in Sorrento, LA, Woodside Landfill in Walker, LA, Reliable Production Service Landfill in Livonia, LA, or Riverbirch Landfill in Avondale, LA. (Discussion of the economic impact of the out-of-Parish hauling option is included in the response to 523.B, Cost-Benefit Analysis, below. Discussion of the environmental impact of this option is included in the response to §523.D, Alternate Facilities, below.)

While no wastes classified as “hazardous” are to be deposited in the landfill, there is the potential of undesirable or harmful releases to the environment. The primary environmental dangers associated with non-hazardous solid waste landfills are the risk of soil and groundwater contamination via failure of the vertical containment system and soil and surface water contamination via failure of the horizontal containment system during a flood resulting in release of waste into surrounding surface waters.

Other, less serious, potential adverse environmental impacts of the facility include litter around the facility due to accidental release from trucks or blown out of the facility during unloading, odor and disease vectors from the landfilled materials going beyond the boundaries of the facility, and generation of methane gas in the landfill after closure.

The anticipated “real” adverse environmental impacts of the facility include preclusion of other uses of the land area for 60 to 70 years, the location of the site in a floodplain and adjacent wetlands, and the negative aesthetic impact of a landfill. In order to avoid the above listed potential and real adverse environmental effects of the facility to the maximum extent possible, the following mitigating measures have been incorporated into the design of the facility and into the operational and institutional controls utilized at the facility:

- a) **Liner System:** St. Mary Parish’s liner system (refer to the response to §521.F.4.b), which utilizes an innovative secondary synthetic liner in conjunction with a compacted clay liner, provides significantly greater protection against the migration of leachate than the sole use of the secondary liner required under the regulations, and provides a higher level of environmental protection for groundwater.
- b) **Surface Run-off Controls and Other Measures to Reduce Generation of Leachate:** St. Mary Parish’s surface run-off control system is designed to minimize the amount of leachate generated

by preventing non-contact water from entering the leachate collection system (refer to Appendix B, Facility Operations Plan). Additionally, the use of geonet and geomembrane in the final cover system will expedite the removal of stormwater that passes through the topsoil layer above, thereby reducing the amount of stormwater that infiltrates the waste and, consequently, the creation of leachate. The geonet will also reduce cover soil erosion by preventing saturation of the upper vegetated soil layer.

- c) **Landscaping/Visual and Access Barriers:** The facility is virtually out of site from the general public, except for the office/weigh station area, the exterior of which is maintained as appropriate by facility personnel. Access to the facility is restricted by a combination of a surrounding borrow canal and a posted chain link fence. In addition, an electrified fence to prevent bears and other animals from contacting the waste will surround the active cells of the landfill with putrescible waste should foraging by bears become an issue. (See responses to §521.B.1.)
- d) **Groundwater Monitoring:** An extensive groundwater monitoring system (refer to the responses to §521.F.4 and the Groundwater Monitoring Plan in Appendix A) will ensure that if groundwater contamination does occur, in spite of the control measures incorporated into the facility, it will be detected rapidly to allow immediate implementation of corrective measures.
- e) **Efficient Methane Collection and Venting System:** St. Mary Parish's facility will safely and efficiently collect and vent any methane gas that is generated to avoid the risks associated with buildup of methane gas (refer to the responses to §521.J).
- f) **Operational Controls:** Adherence to St. Mary Parish's Facility Operations Plan (Appendix B), Stormwater Pollution Prevention Plan (on file at the facility's offices), and Industrial Waste Acceptance Quality Assurance/Quality Control Plan (Appendix D) will assure that only appropriate wastes are accepted at the facility and that other potential adverse impacts are minimized.
- g) **Locational Characteristics:** The advantages of the favorable surface geology and hydrogeology at the site, as compared with other available sites in the Parish, provides significant protection against adverse environmental impacts. In addition, maintaining the location of the facility at its current site, rather than an alternative location, greatly minimized real and potential environmental costs, as described here and later in this document. (Refer to §523.D for a more detailed discussion of this issue.)

In order to avoid the potential and real adverse environmental effects of the facility to the maximum extent possible with regard to the acceptance of RACM wastes, the following mitigating measures, in addition to those listed above, will be incorporated into the design of the facility and into the operational and institutional controls utilized at the facility:

- a) **RACM Waste Approval and Recordkeeping:** Each RACM waste stream will be subjected to the special waste approval process and to special record keeping requirements. All RACM waste transporters will be required to submit a State of Louisiana Asbestos Disposal Verification Form (ADVF) upon delivery of friable asbestos waste to the landfill. RACM waste will not be accepted and a Waste Discrepancy/Rejected Load Report will be completed when: RACM waste arrives without an ADVF; RACM waste arrives and the waste material does not match the description or quantity on the ADVF; or RACM waste arrives, and the information on the ADVF is incomplete or incorrect. All records, logs, and forms regarding RACM waste will be maintained for at least two years in the landfill office. The grid coordinates, depth (elevation), quantity (cubic yards), and site map marked with location will be maintained for all RACM waste in the landfill office until closure of the facility. In addition, a copy of all records of RACM waste disposal locations and quantities will be submitted to LDEQ (Office of Environmental Services, Air Permits Division) upon closure of the facility. Finally, within 60 days of closure and in accordance with State law, a notation will be attached in perpetuity to the deed of the facility property and on any other instrument that would normally be examined during a title search stating that: the land has been used for disposal of RACM waste; containing the survey plot and record of the location and quantity of RACM waste disposed of at the facility; and that the site is subject to LAC 33:III.Chapter 51.Subchapter M and the certification provisions in LAC 33:III.2799.Appendix A – Agent Accreditation Plan.
- b) **RACM Waste Packaging:** RACM waste will only be accepted when it is in wetted conditions and after it has been placed in closed, unruptured 6 mil minimum polyethylene double bags or in other tightly closed containers. If bagged, the bags shall be "goose-necked" and double tied. Individual bags must be of a weight and size that can be easily handled by the transporter. All RACM waste containers must be pre-approved by the Landfill Manager prior to disposal at the St. Mary Parish Landfill. Each bag or container which contains RACM waste must have a warning label meeting the requirements set forth in Section 3.3 of Appendix D.
- c) **RACM Waste Operations:** The Landfill Manager will ensure all RACM waste is carefully dumped and unloaded, placed in the proper location (according to the assigned grid coordinates) and covered. RACM waste will only be accepted into Type I/II Cell 4. Deposition or temporary storage of RACM waste in any other area of the facility will be strictly prohibited. There shall be no visible emissions to the outside air from any active waste disposal area within the landfill where asbestos-containing waste material has been deposited. The Landfill Manager will implement the contingency plan in the event of accidental spills. The disposal area will be away from non-essential personnel. The disposal area will be an excavation, depression in the working face, or at the toe of the slope. Immediately after the generator/transporter's vehicle is moved away from the disposal area, the waste will be covered in accordance with the requirements of LAC 33:III.5151.N.3. Cover material will be applied prior to compacting the waste so as not to rupture the containers or disturb the waste. RACM waste will not be placed within 15 feet of final grade (or slope) or within 15 feet of

intermediate grade slope. LDEQ (Office of Environmental Services, Air Permits Division) will be notified in writing at least 45 days prior to excavating or otherwise disturbing any RACM waste that has been deposited within the landfill and covered. In accordance with LAC 33:VII.711.E.3.a, a geosynthetic clay liner in conjunction with a 24" minimum thickness of interim-compacted cover layer, where applicable, will be installed over Cell 4 as part of the final cover system. In addition, a low-density polyethylene (LDPE) geomembrane liner will be installed over the crown and benches and a minimum of 12" of topsoil will be installed to support vegetative growth.

- d) **Protection Equipment:** Each St. Mary Parish Landfill employee who the Landfill Manager determines is likely to be exposed to RACM waste will be supplied with disposable clothing (coveralls and gloves) and respirator. Disposable coveralls will be worn over normal working attire. St. Mary Parish Landfill asbestos management personnel will utilize NIOSH-approved asbestos protection full-face or half-face respirators with an approved filter (P100 or equivalent) during all RACM waste handling operations.
- e) **Personal Hygiene:** After the RACM waste has been buried and prior to leaving the immediate work area, and before entering eating, smoking or drinking areas, all St. Mary Parish Landfill employees involved with disposing the RACM waste will remove disposable coveralls and gloves and seal them inside a plastic bag. The respirator will be the last piece of personal protective gear to be removed. As soon as possible after removal of personal protective gear, employees will wash their hands and face. Uniforms worn under the disposable coveralls and other potentially contaminated clothing to be laundered will be sealed in a plastic bag.
- f) **Employee Training:** Employees will be trained prior to being assigned to RACM waste management duties and annually thereafter. Employees will receive training in the proper management of RACM waste, what it is, and its potential health effects if mismanaged. In addition, employees will be informed of the industrial hygiene monitoring, its purpose and meaning, and of their right of access to that information. Included in the subject of proper management of RACM waste will be: standard operating procedures; local policies, procedures and regulations; proper use of personal protective equipment; and good personal hygiene practices. All training will be documented.
- g) **Informing Employees:** If monitoring is required and results of asbestos monitoring indicate that concentrations of asbestos fibers exceed the permissible exposure limit (PEL) in accordance with 29 CFR 1910.1001 (0.1 fiber per cubic centimeter of air as an eight hour time weighted average (TWA) as of July 1, 1999), personal monitoring results will be reported to affected employees within five (5) days of receipt of results.
- h) **Fencing:** A chain-link fence is located across the front of the facility and is posted with signs prohibiting trespass. The only vehicular access point to the site is through the front gate in the chain link fence at the facility entrance, which is continuously manned during operating hours and locked during non-operating hours. Perimeter ditches and canals, combined with the chain link

fence across the front, restrict human trespass and prevent unauthorized vehicle access to the facility. The only vehicular entry point to the neighboring Lawrence property is through the front gate of the landfill.

- i) **Signage:** At the front gate is a sign that clearly states what types of waste are accepted at the facility, as well as a list of those wastes explicitly prohibited from disposal at the facility. In addition, a sign stating, "Asbestos Waste Disposal Site. Do Not Create Dust. Breathing Asbestos is Hazardous to Your Health." will be posted in accordance with LAC 33:III.5151.N.2 near the access ramp to Cell 4.

For more detailed information regarding the mitigating measures incorporated into the design of the facility and into the operational and institutional controls utilized at the facility for RACM waste acceptance and disposal, refer to Appendix D (Industrial Waste Acceptance Quality Assurance/Quality Control Plan) submitted with Modification No. 1-07.

In summary, the mitigating measures to be utilized at the site (§521.F) either meet or exceed all applicable regulatory requirements and, combined with the site characteristics (§521.A through E) and the operational plans (§521.G and H), render the likelihood of any of the abovementioned potential releases minute, while also minimizing the real adverse environmental impacts of the facility. In fact, these mitigating measures include many design components and innovative techniques that are not required by the applicable regulations. As such, the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible.

523.B. a cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental-impact costs;

The following analysis of the costs and benefits of the facility clearly indicates that the benefits of its continued operation through at least the proposed permit expiration date, and the other changes proposed in Modification No. 1-07, outweigh any potential adverse impacts.

In assessing the resultant benefits of the proposal, the need for the proposed modifications is clear. In light of the existing St. Mary Parish Solid Waste Ordinances (Exhibit 22), disposal of solid waste generated in the Parish, to include RACM waste, is allowed only at facilities permitted by the LDEQ for such purposes. The St. Mary Parish landfill is the only facility in the area permitted to accept Type I/II wastes, the next nearest facility being more than 55 miles away, and the anticipated life expectancy of the St. Mary Parish landfill is approximately 38 years. Assuming a compacted waste density of 70 pounds per cubic foot, the facility will receive approximately 3.3 million tons of solid waste over a period of 30 to 40 years, based on the available airspace calculations presented in Exhibit 23.

Based on current and predicted municipal and industrial waste generation in the facility's service area, St. Mary Parish anticipates that it will receive approximately 85,000 tons of waste per year (refer to the response to §519.O). The provision of this service to waste generators within the service area satisfies the need for waste disposal capacity, as well as the desire for a competitive market price for waste disposal services. With regard to the need for competitive provision of waste disposal services in the area, it should be noted that ensuring adequate competition within the waste disposal market is one of the stated goals of the legislature's mandate to LDEQ concerning the orderly establishment of regional landfills. See La.R.S. 30:2158.A.2.(g).

Per Ton Costs (Gate Tons)	
Item	Cost/Ton (Gate)
Construction	\$2.43
Closure	\$3.57
Operation & Maintenance	\$22.50
Post-Closure	\$0.55
Finance Charges*	\$7.95
Total:	\$37.01

*Assumes 20-Year Bonds Finance construction costs only. O&M, closure and post-closure are financed internally through tipping fee charges. Conservatively assume current load rates (85,000 tons/yr) for 20 yrs. If so, results in 20 yrs additional with no construction or finance costs.

Looking at the positive economic effects on the local community, one must consider the reduction of waste disposal costs afforded to the Parish and the various affected local governments by having the landfill available for disposal of industrial and municipal waste streams. Considering a scenario wherein the St. Mary Parish landfill is closed or not allowed to accept RACM wastes, there is no change in generated waste quantities, collection modes or costs. All waste generated in the Parish would have to be hauled to a remote landfill for disposal and the estimated disposal increases from \$37.01/ton, which is the estimated total cost for the operation and construction of the landfill as described in the table to the left, to \$44.45/ton. This cost is based on the lowest price submitted in response to a 1996 Request for Quotes and adjusting for inflation (2.16% per year) based on the CPI (U.S. city average) between March 1997 (bid date) and December 2001.

At a fill rate of 85,000 tons per year, this results in estimated annual savings in disposal costs of approximately \$632,000, which represents a total savings to the citizens and businesses of St. Mary Parish of over \$24,000,000 over the projected life of the landfill. This is \$632,000 per year that can be used to encourage business and industry expansion through reduced taxes or through the offering of reasonably priced and environmentally-sound waste disposal; these savings can be used to reduce the tax burden and/or the waste disposal cost on residents rather than having them pay the additional expense of having their waste hauled out of the Parish. These savings might also be directed into provision of other services for the citizens of the Parish, such as health care, education, or economic development. Regardless of how the business and individual residents of the Parish decide, through their elected Parish Government, to apply these savings, the money will be available for purposes other than paying a contractor to haul their waste out of Parish for disposal.

Other direct economic benefits of the RACM waste acceptance and continued operation of the facility include the continuation of 11 full-time positions and two part-time positions at the facility, generating an annual payroll of approximately \$442,000. According to the Louisiana Department of Economic Development, the direct-effect earnings multiplier for this industry and area of the state is 1.7037, which brings the continued annual payroll impact of the facility operation to \$753,035. In addition, facility construction costs are estimated to be \$9.5 million. Using an output multiplier of 1.8024 raises the one-time economic infusion related to facility construction to \$17,191,000. Upon being filled to permitted capacity (30 to 40 years), Cell 4 will require closure at a cost of \$7.6 million (estimated in today's dollars). This is another one-time economic infusion to the Parish, \$13.7 million using the output multiplier of 1.8024.

In order to determine the net economic impact of the facility, negative economic impacts on the community must also be considered. As explained in Subparts D and E, a facility designed and operated under the permitted plan, in the current location, with its favorable site characteristics, renders the real damage and likelihood of serious environmental harms (and resulting economic costs) minimal. Additionally, since the site has been (and currently is) operated as a solid waste disposal facility, there should be no significant adverse impact on property values as a result of the modification. One might consider whether property values in the area would go up if operation of the facility were discontinued in favor of another site, but, considering the remote location of the area and the continued presence of a closed landfill at the site, one would have to conclude that the increase, if any, would be less than the corresponding decrease in value that would occur at any new site. When considering the impact on land values in the vicinity, it is also salient to recognize that the property on which the current site is located is bounded on all sides by land that is owned by the same entity that has agreed to lease additional land to St. Mary Parish for the previously permitted horizontal expansion. One would have to conclude from this fact that the entity most likely to suffer from diminution of property values in the area of the facility does not consider its continued operation detrimental to local property values.

With regard to potential economic costs associated with increased burdens on the infrastructure and service providers, the fact that the site is already successfully used for solid waste disposal indicates that accommodations have been made for the provision of public services needed by the facility. No changes in the need for these services will result from the modification. Indeed, in responding to the requirements of La.R.S. 30:2157, which requires a certification from local emergency responders that they are able to respond to a hazardous materials incident at a solid waste landfill, the local EMS provider (Acadian Ambulance) and local hospital (Lakewood Medical Center) have both indicated that they already possess the necessary abilities to handle hazardous materials incidents under Section 473 of the NFPA Life Safety Code (Exhibit 24). While the local Fire Department (Berwick Fire Department) has stated that they are not certified under Section 472 of the NFPA Life Safety Code, there are numerous contractors available in the vicinity of the facility that are. Thus, there will be no additional costs incurred to upgrade local services as a result of the proposed modifications to the facility. Because of the perceived risks associated with establishing commercial operations adjacent to a landfill, the possibility exists that continued operation of the facility and acceptance of RACM wastes may preclude economic development of the area by business or industries. Again, while such an adverse economic impact may be of concern in the context of locating a new facility, the risk is significantly decreased or non-existent in the case of modification of an existing facility that has previously been used for the disposal of municipal solid waste and is permitted for disposal of industrial wastes. In fact, the availability of a facility permitted to accept industrial solid waste, in particular RACM wastes, should serve as an incentive for further industrial development within the service area and, more specifically, in the immediate vicinity of the site.

Transportation was a factor in choosing the existing site. The site receives waste via truck only, and, as discussed in greater detail in the Subpart D, hauling distance for the largest concentration of the waste that comes to the facility (from the cities of Morgan City and Patterson, the town of Berwick, and the communities of Amelia and Bayou Vista) are minimized by use of this site. The permitted service area for Type I/II/III wastes are St. Mary Parish and all surrounding parishes, including Terrebonne, St. Martin, Iberia, and Assumption; however, acceptance of Type II waste is currently restricted to St. Mary Parish, and those parts of each surrounding parish that are within five miles of the St. Mary Parish boundary, through a self-imposed restriction by resolution of the St. Mary Parish Council, a copy of which is included in Exhibit 25.

With regard to transportation infrastructure, the Government of St. Mary Parish and the Louisiana Department of Transportation and Development have indicated that the roads servicing the facility are adequate for the needs of the facility, both with regard to traffic flows and structures (Exhibit 26). Also, in light of the above statement concerning the proximity of the site to the major waste sources, hauling distance are minimized by use of the site, thereby reducing the wear and tear on roads, as well as increased air pollution and risk of accidents that could be expected to result if a longer transport distance were required.

Finally, the long-term expectations for the site must be considered as part of the analysis of the facility on a cost/benefit basis. As mentioned above, the expected active life of the landfill is approximately 38 years, depending on actual fill rates. This means the expected closure date will be around 2045. After the administrative authority has determined that the facility has completed closure according to the approved plan, a 30-year post closure period will commence, as required by current regulations.

The land on which the facility is located is leased by the Government of St. Mary Parish from the Emerald Land Corporation, but the Scale/Maintenance/Administrative Facilities and the land on which they are located (approximately 5 acres) are owned by the Government of St. Mary Parish. The closure and post-closure maintenance and monitoring of the facility, and financial responsibility associated with them, are addressed in the responses to §521.J, K, and L, respectively. By way of the financial assurance mechanism, long term care and maintenance of the site is assured, both legally and financially.

After the 30-year post closure care period, the site could be utilized for recreational or agricultural purposes, or maintained as "green space". In order to ensure that people are protected from unwittingly buying the land after closure, St. Mary Parish will update the Parish mortgage and conveyance records by entering the specific location of the facility and specifying that the property was used for the disposal of solid waste. A copy of the disclosure document to be filed in the Parish records upon final closure is attached as Exhibit 27. In addition, within 60 days of closure and in accordance with State law, a notation will be attached in perpetuity to the deed of the facility property and on any other instrument that would normally be examined during a title search stating that: the land has been used for disposal of RACM waste; containing the survey plot and record of the location and quantity of RACM waste disposed of at the facility; and that the site is subject to LAC 33:III.Chapter 51.Subchapter M and the certification provisions in LAC 33:III.2799.Appendix A – Agent Accreditation Plan.

Clearly, the above analysis of the positive and negative economic impacts of the proposed modifications indicates that the net social and economic value of continued operation of the facility and the ability to accept RACM wastes is positive. These benefits must now be weighed against the project's anticipated environmental impact costs (refer to Subpart A), which can be roughly classified as either real or potential costs. Real costs are those that have a reasonable likelihood of being incurred to some degree during the life of the landfill. These would include litter, traffic, odor, and vector problems, along with the exclusion of the land from other uses, the location of the site in a floodplain and adjacent wetlands, and the negative aesthetic impact of a landfill. Potential costs are those associated with more serious, but far less likely, potential system failures at the facility, such as contamination of the soil, groundwater, and surface water in the vicinity of the site.

Based on the operating record of the facility, the locational characteristics of the site, and the protective measures incorporated into the design and Operations Plan for the facility, one can anticipate the real environmental costs of the project to be minimal. To wit, the facility has never been cited for, in fact,

never gets complaints about, odor or vector issues; it is doubtful that the site would be developed for a higher use in the absence of RACM waste acceptance or cessation of operations; the Louisiana Department of Culture, Recreation and Tourism has listed no historically or culturally significant sites in the vicinity of the site; impact on the floodplain is minute; practically all unoccupied tracts in St. Mary Parish are included in the proposed "critical habitat" for the Louisiana Black Bear; and, the negative aesthetic impact of continued operation of the facility is negligible, there being a landfill already on the site. (Refer to the response to Subpart E for a detailed description of the protective measures to be taken during design, construction, and operation of the facility that will reduce the likelihood and severity of associated real costs.)

With regard to the potential environmental costs of the facility, consideration of the stringent regulatory design, construction, and operational requirements currently in effect, the location characteristics, and the utilization of innovative systems that provide greater protections than those required by the regulations, clearly predicts that the likelihood of incurrence of any such costs is minute or non-existent. (Again, refer to the response to Subpart E for a detailed description of the protective measures to be taken during design, construction, and operation of the facility.)

Additional consideration must be given to the fact that many of the real and potential harms that could result from the operation of a solid waste disposal facility are decreased when the situation involves the continued operation of an existing facility, rather than the permitting of a separate facility in an area previously unaffected by the operation of such facilities. In effect, certain harms that result from the mere presence of such a facility have already occurred at the existing site. The fact that the Modification No. 1-07 calls for continued operation, rather than the location of a new facility, must not be overlooked when calculating the environmental costs of the project. Similarly, by instituting the acceptance procedures, operational standards, and employee training guidelines outlined in Appendix D (as modified by Modification No. 1-07), the acceptance and disposal of RACM wastes will pose no greater real or potential harm than those posed by the Type I and Type II wastes already accepted.

In summary, the net social and economic benefits to be derived from the requested modification clearly outweigh the real and potential environmental impact costs. The environmental impact costs are minimal, especially when compared to the siting of a new facility in an area not currently utilized for solid waste disposal. The LDEQ's prior determination (through issuance permits prior to P-0193R1) that benefits outweigh costs could only be confirmed under the present circumstances, in light of the lower likelihood of occurrence of environmental costs under the more stringent regulations and improved facility design and operational plans. The savings to local citizens resulting from the lower cost provision of waste disposal services in the service area, the direct economic benefits that can be expected to flow from the operation of the facility, and the increased potential for area growth afforded by the availability of environmentally-sound waste disposal capacity clearly outweigh the real and potential environmental impact costs.

523.C. A discussion and description of possible alternative projects that would offer more protection to the environment without unduly curtailing non-environmental benefits;

The Government of St. Mary Parish (St. Mary Parish) has considered alternative technologies and has concluded that landfilling of solid waste, as set forth in Modification No. 1-07, is the only environmentally-sound alternative that is also cost effective. Little has changed since the issue was addressed in the initial permit application and the LDEQ determined that there were no other viable alternatives to operations at the facility. Other alternatives to local landfilling, including recycling, composting of sludge and yard waste, long distance hauling of waste, and combinations of these, were considered in a study of regional waste management practices and options², but were deemed less economical than landfilling of all wastes in the Parish, as well as of questionable environmental benefit. According to the results of this study, "...of the waste management options studied, landfill of all waste remains the least cost method of disposal..." for each parish in the region. The options considered in the study include various combinations of recycling, composting, hauling to St. Landry Parish Landfill, and burning waste for energy. The discounted total disposal cost/ton of the next least expensive option considered (Recycling with Landfill Disposal of Residual) was over 9% higher than landfilling at the Harold J. "Babe" Landry Landfill and was expected to yield only a 1% reduction in waste being landfilled. Those parts of the report that apply to St. Mary Parish are attached as Exhibit 21, but a summary of the various approaches studied and their respective costs and waste reduction comparisons is illustrated in the following table.

Scenario	Estimated Cost Increase per Ton	Estimated Weight Reduction
<u>I. Landfill Disposal of All Waste</u> - All waste is placed in a local landfill without benefit of recycling, composting, or other waste minimization technique.	N/A	N/A
<u>II. Recycling with Landfill Disposal</u> - After application of the local recycling rate, the remaining waste is landfilled.	9.2%	1%
<u>III. Recycling and Composting with Landfill Disposal</u> - The local recycling rate is used coupled with composting of 100% of the yard waste and sewerage sludge. The remaining waste is landfilled.	21%	16-20%

² See *Solid Waste Management Study, Volume I. Local Government Cost Analysis - Report for Evangeline Economic Planning District Council*, prepared by the Urban Waste Management and Research Center, UNO, and the Institute for Recyclable Materials, LSU, which is on file at LDEQ.

Scenario	Estimated Cost Increase per Ton	Estimated Weight Reduction
<u>IV. Long Distance Haul for Landfill Disposal of All Waste</u> – Same as Scenario I with a long distance haul. All waste is placed in a distant landfill (St. Landry Parish) without benefit of recycling, composting, or other waste minimization technique.	58%	0%
<u>V. Recycling and Composting with Long Distance Haul for Landfill Disposal</u> – Same as Scenario III with a long distance haul.	71%	16-20%
<u>VI. WTE (Waste to Energy) with Recycling and Landfill Disposal</u> – After application of the local recycling rate, the remaining waste goes to waste-to-energy and the ash is landfilled.	187%	64%

The table above helps to illustrate the expected elevated costs of the various options considered in the report, but closer inspection serves to put the limitations of the environmental benefits associated with each option in clearer perspective. As such, each option is discussed in more detail below, progressing from the most expensive (cost/ton) to the least expensive.

Two project options are to discontinue operation of the facility or to not allow RACM waste disposal in favor of long distance hauling of the Parish's waste to out-of-Parish landfills. The economics of long distance hauling are discussed in §523.B and the environmental impacts of long distance hauling are discussed in §523.D; consequently, only those scenarios that do not include Long Distance Haul will be discussed here.

The economics of energy recovery from solid waste continues to restrict its status as a viable alternative to landfilling.³ In addition, studies of the effects of municipal waste combustion indicate potential adverse consequences related to emissions of dioxin resulting from the burning of plastics with high chlorine content.⁴ Besides the issue of potentially toxic air emissions raised in the Costner article, waste incineration will certainly result in the emission of pollutants via post incineration stack gasses, which will not only add pollutants to the air in St. Mary Parish, but will create an additional source of NOx within 100 km of an area that is in non-attainment of the Clean Air Act Standards.

³ See *Solid Waste Management Study, Volume I. Local Government Cost Analysis – Report for Evangeline Economic Planning District Council*, prepared by the Urban Waste Management and Research Center, UNO, and the Institute for Recyclable Materials, LSU, which is on file at LDEQ.

⁴ See, e.g., Costner, Pat; *The Burning Question - Chlorine & Dioxin*, April 1997.

Regarding composting of yard wastes and sewerage sludge, the environmental benefits of implementing this technology would be limited, if not questionable, especially in light of the possibility of implementing sustainable landfill technology at the facility, which is discussed in detail below. This is because the constituents of the waste stream that comprise this portion are highly biodegradable, meaning they pose a minimal threat to the environment and would provide a major source of raw material for in-situ production of hummus upon implementation of sustainable landfill technology. Nonetheless, in 1992 St. Mary Parish conducted a study to evaluate alternative solid waste disposal/resource recovery/recycling services for the Parish. The study included solicitation of proposals from parties interested in providing this service, resulting in submittal of six different proposals. The various proposals included material separation and recovery, composting, and bio-mechanical processing, all in conjunction with landfilling of residual wastes. The two finalist proposals that appeared most promising, however, were each based around bio-mechanical processing of the waste stream (MSW and sewerage sludge) to produce a product stream that comprised recyclables (<5%) and compost (65-70%), which would be sold, and residual (25-30%), which would be disposed in a landfill.

While these projects offered the opportunity to drastically reduce the need for expensive landfill space, the total 1994 cost of disposing of waste using this technology was estimated between \$45.00/ton and \$51.42/ton (\$53.95 – \$61.64/ton in 2002 dollars, adjusting for inflation of 2.54% per year based on the CPI between April 1994 and December 2001). In comparison, the cost of building and operating the landfill is expected to be \$37.01/ton disposed, as described above. Additionally, both proposals indicated that a new site would be required to develop the technology in St. Mary Parish, because the existing landfill site does not contain enough open space for the composting process. This means that, in order to institute composting technology in St. Mary Parish, the citizens thereof would have to accept development of a new solid waste site in the Parish, along with all the environmental disadvantages inherent to that, along with a 46% increase in the cost of waste disposal.

Despite the obvious economic disadvantages indicated above, St. Mary Parish again considered in-vessel composting of sewerage sludge in 1996, but the results of the study again indicated major economic disadvantages to the project. In addition, the largest portion of the proposed feed for the process considered, sewerage sludge from the Morgan City wastewater treatment plant, is now being bio-processed at the wastewater plant, which would drive the cost per ton even higher due to the reduced volume being processed.

With regard to resource recovery, the Parish does not have curbside recycling. It was provided throughout the unincorporated areas of the Parish, plus Berwick and Patterson, from 1990 through 1992, but the service was discontinued due to lack of participation. In order to maximize the likelihood of success of the recycling program, the St. Mary Parish Council hired a full-time local Recycling Planner and established an Advisory Committee to oversee the process, with the goal of reducing the waste stream by 25% by the end of 1992. A public awareness campaign was conducted, with the Recycling

Planner attending meetings of various civic organizations, churches, and the business community to educate people on recycling and to discuss the numerous advantages thereof. An education program was instituted, wherein a curriculum guide on recycling, which was developed by LDEQ, was provided to all schools in the Parish and Advisory Committee members spoke to school organizations about recycling. Informational fliers were distributed to all households and Recycling Exhibits were displayed at local fairs and festivals. Despite this effort, the participation rate was 1-3% of households in the rural areas of the Parish and 15-20% in the more densely populated areas and the waste stream was reduced by less than 1%. So, while expanded resource recovery in the service area would reduce landfill loading, extensive educational and public awareness efforts in the past have proven incapable of bringing participation rates to a level that makes the curbside recycling program economically feasible. While past efforts have been unsuccessful, St. Mary Parish understands that large scale recycling may in the future become a feasible and valuable aspect of their solid waste program, and will, accordingly, continue to gauge public willingness and explore options in that realm. At present the Parish provides recycling bins at various locations around the Parish, including at the facility entrance, that are available for community use. This recycling resource helps to reduce, to a limited degree, the amount of waste destined for land filling. In addition, the facility operates as a recycling center for waste tires and white goods.

One alternative technology currently being utilized in the Parish to reduce landfill loading is bio-processing of Morgan City's sewerage sludge, mentioned above, which occurs on-site at Morgan City's wastewater treatment facility. This process, called Bioset®, converts the residual bio-sludge from Morgan City's wastewater plant, which used to go to the St. Mary Parish Landfill, into marketable soil enhancement material and nitrogen fertilizer, reducing landfill loading and creating useful products.

A second alternative technology implemented by the Parish to extend the life of the landfill involves the use of alternate daily cover materials, as approved by issuance of Permit No. P-0193R1; these alternative materials include tarps, Topcoat® (or similar spray-on slurry), and/or foam. The facility currently uses a spray-on slurry material manufactured by Topcoat®. According to Central Fiber Corporation (manufacturer of Topcoat®), in three months, at six inches per day, 33 feet of daily cover material will be added over the waste, while utilization of Topcoat® will add only 33 inches of material (<http://www.centralfiber.com/adc.shtml>). Operational methods and additional data for tarps, foam, and Topcoat® (or similar spray-on slurry) are included in the Facility Operations Plan.

Another alternative technology that is under consideration by St. Mary Parish for the future, and which would remain a possibility during and after expansion of the landfill, is sustainable landfill mining. This technology provides for in-situ treatment of landfills to promote rapid stabilization of the waste through the injection of air and water, preferably leachate. Rapid aerobic decomposition of the waste results in reduction of mass, improvement of leachate quality, reduction of odors and methane production, and the ability to safely mine composted humus and other reusable materials (such as plastics, glass, and metals) from the landfill.

In general, decomposition of organics in a landfill occurs anaerobically, which is considerably slower than aerobic decomposition, due to the isolation of the waste from oxygen sources, like ambient air. Two results of anaerobic decomposition are slow decomposition rates and generation of methane gas. By injecting air and recirculating aerated leachate into the waste, oxygen is made available within the waste pile for aerobic decomposition, which speeds the conversion of organic waste to usable hummus and generates carbon dioxide instead of methane. One result of the rapid stabilization and waste volume reduction is that additional space becomes available for waste disposal. Additional landfill space can be derived by mining the landfill for recyclable materials such as metals, plastics, glass, and the hummus that results from the decomposition process. In addition, air emissions, as noted above, and leachate quality are improved by the aerobic decomposition process.

St. Mary Parish's permitted leachate collection and removal system is designed to facilitate the use of this technology and, as the landfill is utilized, St. Mary Parish will continue to explore the feasibility of applying the in-situ treatment process as a means of achieving a "sustainable landfill." One of the major advantages of this process is the fact that continuing ordinary landfill operations does not preclude the use of this innovative technology as an effective alternative to simple landfilling of waste. Rather, landfilling in the manner for which the Parish is permitted is the first step in the process. As filling of Cell 4 proceeds, St. Mary Parish will be able to more accurately determine the feasibility of implementation of the process by possibly conducting pilot tests and further economic feasibility studies.

In order to offer more protection to the environment than would be offered by a landfill constructed under the current regulatory standards, St. Mary Parish incorporated the following design features into the facility. As such, these features go beyond current regulatory requirements in terms of environmental protection afforded:

- Use of an innovative new synthetic secondary liner system that provides a greater measure of protection than the secondary compacted clay liner system required by regulation, as discussed in the response to §521.F. Studies of the alternate secondary liner system used by St. Mary Parish indicate that it provides significantly greater protection against migration of leachate - water flux through the secondary (bentonite) portion of the liner being "...2,000 times less than..." the compacted clay liner required under the regulations. Equivalency documentation for the secondary liner is included in Exhibit 23. The alternate secondary liner system (a bentonite based geomembrane-supported geosynthetic clay liner), unlike a compacted clay layer, is not subject to the "shrink/swell" effect of fluctuations in moisture and temperature and, hence, will better retain its superior level of impermeability. With its superior "self-healing" qualities and design location beneath a two-foot thick protective soil cover, the alternate secondary liner system truly provides an improvement over current regulatory requirements. This is especially true

considering that the alternative secondary liner is installed over a one-foot (minimum) compacted clay liner.

- The use of a geonet in conjunction with a geomembrane as part of the final cover (refer to the responses to §521.J). Use of the geonet goes beyond the current regulatory requirements. The geonet provides almost unrestricted removal of infiltrated stormwater, which reduces permeation and, ultimately, the creation of leachate. The use of the geonet also guards against failure of the final cover induced by hydraulic head pressure. This system helps avoid both surface and groundwater contamination.

The chosen technology, namely landfilling, is the most common disposal method for non-hazardous MSW and industrial wastes and has been for many years. While the technology and materials used in the process have improved substantially in recent years, as has the level of protection to the environment, the basic tenets of the process have proven over many years to be reliable and economical in the minimization of environmental impact of disposal of these wastes.

The sequence of technology at the facility, including analysis, separation, and unloading of incoming waste, and storage, treatment, and monitoring of the waste in the landfill is described in detail in the Facility Operations Plan, Appendix B, and the Industrial Waste Acceptance Quality Assurance/Quality Control Plan, Appendix D. The technology used in the closure and post-closure of the facility are described in detail in the responses to §521.J and K and in the Closure and Post-Closure Plan, Appendix H.

Because of the major changes in solid waste disposal regulations since initial use of the facility, the mitigation measures that implemented in the design and construction of Cell 4 provide far greater protections to the environment than those that were utilized in Cells 1, 2, and 3. Cells 1, 2, and 3 were permitted under the solid waste regulations in effect at the respective times of permit issuance. Since that time, the requirements mandated under Subtitle D of the Resource Conservation and Recovery Act (RCRA) have been implemented in Louisiana, via the promulgation in 1993 of the Louisiana Solid Waste Regulations (LAC Title 33, Part VII, Subpart 1). The current regulations – and those portions of the facility design that go beyond the protections afforded by the new regulations – provide significantly greater environmental protections than those used formerly at the site.

Of all these regulatory improvements, perhaps most important is the requirement that a synthetic liner be installed to prevent the migration of leachate. See §711.B.5. The use of a liner, in conjunction with the superior geology of the site (as discussed in the response to §521.D), provides significantly greater protections against one of the primary potentially adverse environmental impacts – groundwater contamination. Additionally, St. Mary Parish is permitted to utilize an innovative new synthetic secondary liner system that provides a greater measure of protection than the secondary compacted clay liner

system required by regulation, as discussed in the response to §521.F. Indeed, studies of the alternate secondary liner system utilized by St. Mary Parish indicate that it provides significantly greater protection against migration of leachate - water flux through the secondary (bentonite) portion of the liner being "...2,000 times less than..." the compacted clay liner required under the regulations. Equivalency documentation for the alternative secondary liner is included in Exhibit 23. The alternate secondary liner system (a bentonite based geomembrane-supported geosynthetic clay liner), unlike a compacted clay layer, is not subject to the "shrink/swell" effect of fluctuations in moisture and temperature and hence will better retain its superior level of impermeability. With its superior "self-healing" qualities, design location beneath a two-foot thick protective soil cover, and use in conjunction with a primary 60-mil HDPE geomembrane, the alternate secondary liner system truly provides maximum environmental protection. This is especially true considering that the alternative secondary liner is installed over a one-foot (minimum) compacted clay liner.

Related measures include the mandatory use of a leachate collection system to facilitate the control of leachate. Cell 3 at the site, currently active, is equipped with a leachate collection system, but it differs markedly from that used in the Cell 4. As required by §711.B.4.b.vii (a) and §711B.5.d, the leachate collection system utilized in Cell 4 is installed above the liner system, greatly enhancing its effectiveness. In addition, as discussed in the response to §521.F.4, all leachate from Cells 3, 3A, and 4 is pre-treated at the onsite Oxidation Pond, and then pumped to a nearby sewerage system force main for treatment at a POTW rather than being discharged to the Berwick Canal.

The consumer product type wastes to be disposed at the site include paper products, food and food and beverage packaging, and cleaning product packaging, among many others. Many manufacturers of consumer products are indeed moving toward lower impact packaging technologies, using different materials and innovative package designs, and the trend toward waste minimization appears to be growing based on consumer demand for such changes.

In summary, none of the alternatives to landfilling are truly feasible, particularly on a large scale, with the possible exceptions of sustainable landfill technology, bio-sludge composting, alternative daily cover materials, and the limited use of recycling, which are incorporated to the extent possible in the plans for the facility. In light of the increased protections afforded to the environment by operation of the site, the environmental dangers associated with the alternatives of energy recovery or disposal via incineration, and the lack of any environmental advantage to hauling waste out-of-parish, there are no alternative projects that would offer more protection to the environment than the facility as proposed, without unduly curtailing non-environmental benefits.

523.D. a discussion of possible alternative facilities which would offer more protection to the environment without unduly curtailing non-environmental benefits; and

The Harold J. "Babe" Landry Landfill is an existing landfill facility, having been in operation since before 1982. Assuming all other characteristics to be similar, the relative environmental impacts associated with siting a new facility are much greater than those resulting from continued operation of an existing facility. In short, there are certain environmental risks and impacts that are associated with having a landfill in the area (odors, methane generation, potential surface water infiltration, etc.) and these impacts do not go away if waste deposition is ceased. In addition, these impacts will not increase with acceptance of RACM waste. Constructing a landfill on a new site brings those impacts to the new site without alleviating them from the existing site, essentially doubling the overall risk/impact from those issues. In the context of continued operation of an existing facility, therefore, consideration of alternative sites may be viewed as inherently less important than in the siting of a new facility. This fact notwithstanding, the following analysis of potential alternative sites is provided, which demonstrates that there are no alternative sites that would provide greater protection to the environment than the existing site without unduly curtailing non-environmental benefits.

As mentioned previously, one alternative to this landfill is not to do any project, shipping all waste to existing, out-of-Parish landfills. The economics of this option are discussed in detail in §523.B above, but, since not every landfill is created equal, an evaluation of the expected environmental risks associated with shipping St. Mary Parish's waste to existing, out-of-Parish landfills will be considered here. The purpose of this comparison is to determine whether there are any potential alternative landfills that might be environmentally superior to the St. Mary Parish Landfill to the extent that, despite the various economic advantages of the St. Mary Parish site, environmental risk minimization compels a choice of shipping to the alternative landfill. As such, environmental comparisons between the St. Mary Parish Landfill and each of the four most likely alternative landfills will be presented here. For a couple of reasons, the comparisons focus on discussion of geologic and hydrogeologic site characteristics. First, these are clearly the most important environmental site characteristics when siting a landfill, because they are the major factors in whether usable groundwater would be contaminated in the event of a leak from the landfill liner system. Second, since all landfills now in operation should be constructed and operated according to minimum requirements of EPA's Subtitle D regulations, there should be little difference between any two landfills with respect to design, construction, or operation. This statement carries the following caveats: the existing site was designed more recently than the four potential alternatives, so landfill design technology has advanced beyond what was available when the other facilities were designed and built, and St. Mary Parish has chosen to go beyond the requirements of Subtitle D, as discussed elsewhere in this document. Even considering these caveats, the differences in risk will be minor compared to differences in geologic and hydrogeologic characteristics. As such, the following paragraphs contain, first, a description of the pertinent geologic and hydrogeologic characteristics of the St. Mary Parish Landfill, and next, comparisons between the St. Mary Parish Landfill and each of the alternative landfills mentioned in §523.A, above. It should be noted that each of

the potential alternative landfills discussed here has been determined by LDEQ to be on sites that have suitable geology and hydrogeology for siting a landfill and each has been permitted by LDEQ for such purpose. Any comparisons included herein are intended solely to show that none of the alternate sites is superior to the site of the St. Mary Parish Landfill. (All geologic and hydrogeologic information regarding the potential alternative landfills was taken from the permit application documents of these landfills on file at LDEQ.)

Harold J. "Babe" Landry Landfill – Berwick, LA – Owner: Government of St. Mary Parish

The Harold J. "Babe" Landry Landfill is underlain by three permeable zones between ground surface and 100 feet below ground surface (bgs). The first of these is a discontinuous band of sand and silt, the top of which is between 8 and 22 feet bgs and having an average thickness of 4.5 feet. The maximum excavation for Cell 4 is 5 feet, near the center of the cell, so the minimum thickness of the natural clay barrier between the excavation and the top of this discontinuous permeable zone is 3 feet. No sand or silt deposits were encountered in this natural clay barrier zone that is between the excavation and the first permeable zone. This first permeable zone is underlain by a stratum of clay (CH-CL) that is uninterrupted between 24 feet and 44 feet bgs. This means that, between the first and second permeable zones, there is an approximate 20 foot layer of clay in which no sand, silt, or appreciable organic matter were detected. The next permeable zone begins at 44 feet bgs, is about 9 feet thick, and is discontinuous below the site (sand and/or silt detected in 5 of 19 borings). This permeable zone is underlain by another layer of clay that extends vertically from 50 feet to at least 63 feet bgs, in which no sand, silt, or appreciable organic matter were detected. Below this 13 foot layer of clay is the third permeable zone, which is a continuous aquifer of undetermined thickness and broad areal extent. This aquifer is the first continuous permeable zone below the site and there are no known producing wells within 3 miles of the site. The reason the aquifer is unused in this area is described in detail below.

According to Water Resources Bulletin No. 1 *Ground Water in Louisiana*, published in 1960 by the La. Department of Conservation, the Louisiana Geological Survey, and the La. Department of Public Works, the existing site is located in Region 5C, where "...there is no fresh ground water except possible thin lenses of fresh water floating on salt water." In other words, the water contained in the aquifer below the site is unusable for all practical purposes, as evidenced by the fact that all drinking water in the area is derived from surface sources.

According to the map *Recharge Potential of Louisiana Aquifers* and the accompanying booklet, which were prepared in 1989 by the Louisiana Geological Survey for the Department of Environmental Quality, the site is located below the southern limit of recharge areas for major freshwater aquifers in an area that does "...not recharge major Louisiana freshwater aquifers." In other words, no recharge of aquifers from surface water occurs in the area in which the site is located.

In summary, the groundwater under the site is protected from potential contamination from the landfill by the following geologic and hydrogeologic characteristics:

- There is a minimum 3-foot thick natural clay barrier between the bottom of excavation and the first permeable zone.
- There are a minimum of 36 feet (combined, in three strata) of natural clay between the bottom of excavation and the top of the first continuous permeable zone beneath the landfill.

In addition, the site is in an area that does not recharge freshwater aquifers, and the aquifers in the area are not used for fresh water production because of poor quality.

Colonial Landfill – Sorrento, LA – Owner: BFI – Distance from Harold J. “Babe” Landry Landfill: 59 miles

The first continuous permeable zone beneath the Colonial Landfill is located at approximately -40 feet msl and there is one 9 foot clay barrier between the bottom of the landfill excavation and the first continuous permeable zone below the facility. This is in comparison to St. Mary Parish, which has a total of 58 feet (including 36 feet of uninterrupted clay, in three strata) between the bottom of excavation and the shallowest continuous permeable zone. It should be noted that the Colonial landfill is surrounded by a slurry wall, which is designed to prevent horizontal migration of groundwater by blocking flow by the installation of an impermeable underground wall of clay slurry.

According to the *Ground Water in Louisiana* bulletin, mentioned above, the site of Colonial landfill is on the boundary between Regions 1C and 4C, so both regions are discussed here. In Region 1C, “Moderate to large quantities of soft ground water generally are available...” and in Region 4, “Moderate to large quantities of hard water are available...”; however, in the 4C portion of the region, the fresh water exists in the same sand unit with salt water, requiring shallow screening of wells and low flow rates. Regardless of which ground water region the Colonial site is in, the site is not superior to the St. Mary Parish site, where there is no fresh groundwater available.

According to the *Recharge Potential of Louisiana Aquifers* map mentioned above, the site of Colonial landfill is located in the recharge zone of the alluvial aquifer of the Mississippi River, and, according to the accompanying booklet, “The alluvial aquifers are recharged through the direct infiltration of rainfall in the river valleys, lateral and upward movement of water from adjacent and underlying aquifers, and overbank stream flooding.” Therefore, compared to the St. Mary Parish site, (which is located below the southern limit of recharge areas for major freshwater aquifers), this site is not superior with respect to aquifer recharge potential.

Based on the above discussion, the geologic and hydrogeologic characteristics of the Colonial site are not superior to those of the site in St. Mary Parish.

Reliable, Production Service Landfill – Livonia, LA – Owner: Waste Management – Distance from Harold J. “Babe” Landry Landfill: 119 miles

At the site of the Reliable Landfill, there are approximately 13 feet of uninterrupted clay strata between the bottom of excavation and the alluvial aquifer, whereas the first continuous permeable zone at the St. Mary Parish site, which is the alluvial aquifer, is separated from the bottom of excavation by at least 36 feet of uninterrupted clay strata.

According to the *Ground Water in Louisiana* bulletin, mentioned above, the site of Reliable landfill is in Region 3B, indicating moderate to large quantities of hard water and small to large quantities of soft water available from quaternary and the underlying deposits of Miocene and Pliocene ages. In addition, as mentioned above, the shallow permeable zone below the site, as well as the alluvial aquifer, are widely used for water production in the area. Based on this information, the site is not superior to the St. Mary Parish site, where there is no fresh groundwater available.

According to the *Recharge Potential of Louisiana Aquifers* map mentioned above, the site of Reliable landfill is located in the recharge zone of the alluvial aquifer of the Mississippi River, and, according to the accompanying booklet, “The alluvial aquifers are recharged through the direct infiltration of rainfall in the river valleys, lateral and upward movement of water from adjacent and underlying aquifers, and overbank stream flooding.” Therefore, compared to the St. Mary Parish site, (which is located below the southern limit of recharge areas for major freshwater aquifers), this site is not superior with respect to aquifer recharge potential.

Based on the above discussion, the geologic and hydrogeologic characteristics of the Reliable site are not superior to those of the site in St. Mary Parish.

Riverbirch Landfill – Avondale, LA – Owner: Riverbirch, Inc. – Distance from Harold J. “Babe” Landry Landfill: 72 miles

The shallowest continuous permeable zone beneath the Riverbirch Landfill occurs at 72 to 83 feet bgs. Between the bottom of excavation and the top of this permeable zone, there is a 25 foot thick clay stratum. In comparison, The St. Mary site has 36 feet of clay between the bottom of excavation and the top of the shallowest continuous permeable zone.

According to the *Ground Water in Louisiana* bulletin, mentioned above, the site of Riverbirch landfill is in Region 1C near the boundary with Region 4C, so both regions are discussed here. In Region 1C, “Moderate to large quantities of soft ground water generally are available...” and in Region 4, “Moderate to large quantities of hard water are available...”; however, in the 4C portion of the region, the fresh water exists in the same sand unit with salt water, requiring shallow screening of wells and low flow rates. Regardless of which ground water region the Riverbirch site is in, the site is not superior to the St. Mary Parish site, where there is no fresh groundwater available.

According to the *Recharge Potential of Louisiana Aquifers* map mentioned above, the site of Riverbirch landfill is located in the recharge zone of the alluvial aquifer of the Mississippi River, and, according to the accompanying booklet, "The alluvial aquifers are recharged through the direct infiltration of rainfall in the river valleys, lateral and upward movement of water from adjacent and underlying aquifers, and overbank stream flooding." Therefore, compared to the St. Mary Parish site, (which is located well below the southern limit of recharge areas for major freshwater aquifers), the Riverbirch site is not superior with respect to aquifer recharge potential.

Therefore, the geologic and hydrogeologic characteristics of the Riverbirch site are not superior to those of the site in St. Mary Parish.

Woodside Landfill – Walker, LA – Owner: WMI – Distance from Harold J. "Babe" Landry Landfill: 86 miles

Although there are low yield wells in the shallow permeable zones at the site, there is no natural clay barrier between the bottom of excavation and this first continuous permeable zone, as compared to the St. Mary site, which has a minimum of 3 feet of natural clay between the bottom of the excavation and the first permeable zone. The deep Prairie aquifer is located about "...70 to 75 feet below the ground surface..."

According to the *Ground Water in Louisiana* bulletin, mentioned above, the site of Woodside landfill is in Region 1C, where "Moderate to large quantities of soft ground water generally are available...", a fact that is borne out by the numerous water wells in the area. As such, the site is not superior to the St. Mary Parish site with respect to ground water resources in that there is widespread usage of groundwater in the area, as opposed to the St. Mary Parish site, where there is no fresh groundwater available.

According to the *Recharge Potential of Louisiana Aquifers* map mentioned above, the site of Woodside landfill is located partially in the recharge zone of the Southeast Louisiana Aquifer System, and partially in the recharge zone of the Alluvial Aquifer System. According to the accompanying booklet, recharge of the Southeast Louisiana system "...occurs primarily by the direct infiltration of rainfall in interstream, upland outcrop areas..." and "The alluvial aquifers are recharged through the direct infiltration of rainfall in the river valleys, lateral and upward movement of water from adjacent and underlying aquifers, and overbank stream flooding." Compared to the St. Mary Parish site, (which is located well below the southern limit of recharge areas for major freshwater aquifers), the Woodside site is not superior with respect to aquifer recharge potential.

Based on the above discussion, it is clear that the geologic and hydrogeologic characteristics of the Woodside site are not superior to those of the site in St. Mary Parish.

Considering the available information covered in the above discussions comparing the geologic and hydrogeologic characteristics of each of the potential alternative sites with those of the St. Mary Parish site, it appears that none of the potential alternatives is superior to the St. Mary site with respect to these criteria. If one adds to the consideration the negative environmental impacts associated with hauling St. Mary Parish's waste many miles to an out-of-Parish landfill, as well as the negative economic impacts associated with that choice, it is clear that the choice to not continue operating the St. Mary Parish landfill in favor of trucking waste out-of-Parish would not only be detrimental to the economy of St. Mary Parish, but would carry an overall environmental disbenefit.

In the process of selecting this site originally, St. Mary Parish considered a total of three sites, each of which was offered in response to an advertisement for such property. Development costs for each site were determined to be approximately equal; however, each of the two sites not chosen would have required an additional transfer station, thus increasing the overall project cost. In addition to this financial analysis, a Solid Waste Site Suitability Study (Appendix E.12), including site characterization and geotechnical investigation, was conducted in 1982 by the Louisiana Department of Natural Resources to determine the suitability of the existing site for the purposes of developing a landfill. The conclusions of that study state that, contingent on several recommendations that were subsequently implemented, the "...site is suitable for solid waste disposal activities." This conclusion was based on geologic and hydrogeologic analysis, as well as groundwater and environmental investigations.

In addition to the original site selection process mentioned above, St. Mary Parish conducted a new site selection evaluation for purposes of determining whether there are superior alternative sites for St. Mary Parish's 2002 landfill expansion project (permitting and construction of Cell 4). Because of financial and other considerations, only sites within St. Mary Parish were considered as potential alternatives. Assuming, then, that any alternative site would be in St. Mary Parish, consideration turns to whether there are available sites within the Parish that would offer more protection to the environment than the present site. As soil type and potential for aquifer recharge are the most important site characteristics from the standpoint of what is arguably the greatest risk posed by landfills, that of groundwater contamination, favorable geologic and hydrogeologic characteristics were given significant weight in assessing the viability of potential alternative sites.

Prior to exploring the Parish for potential landfill development sites, St. Mary Parish recognized that there is previously used but available space at the current site that might provide superior site characteristics for development as a landfill. For instance, the area that includes Cells 1 and 2, which is north of Cell 3, and the Old Berwick Dump area, which is immediately to the east of Cell 3, have each been used previously for solid waste disposal and closed, but were not developed vertically to the maximum extent possible. Because they are both slightly elevated and treeless, one can assume that neither is in a wetland area or is part of occupied Louisiana Black Bear habitat. One can also assume that the geologic and hydrogeologic characteristics are similar to those of the Cell 4 area. With this said, it would appear

initially that the two areas would be superior to the Cell 4 area, in that they are essentially identical to the Cell 4 area, except that they do not encroach on wetlands.

Both of the areas mentioned above were used for waste disposal prior to the implementation in Louisiana of the requirements mandated under Subtitle D of the Resource Conservation and Recovery Act (RCRA). This means that neither disposal area is equipped with a liner nor any mechanism to prevent groundwater contamination from the waste contained therein. While this does not appear to have been problematic to groundwater quality thus far, it creates a complication for development of the area as a Subtitle D landfill in that it renders determination of the source of any future downgradient groundwater quality problems very difficult (i.e., the site would not be "monitorable"). That is, if groundwater quality problems are detected in the future, it would be difficult, if not impossible, to determine whether the contamination was the result of a leak or other problem with the new Subtitle D liner system, or simply delayed leaching out of contaminants from the old, unlined disposal area under the new landfill.

Construction of a landfill over existing waste creates other problems, as well, such as the possibility of excessive differential settlement due to decomposition of the sub-waste, resulting in potential damage to the liner system. In order to prevent this problem, the entire volume of sub-waste would require stabilization prior to construction of the new landfill, a time consuming process (2 to 3 years) that would have precluded project completion prior to the time that Cell 3 was expected to reach capacity.

In addition to the environmental concerns discussed above, each of the two on-site areas has boundary constraints that severely limit the economic feasibility of developing a landfill there. The Old Berwick Dump area is contiguous with Cell 3, but is very small for landfill development (about 6 acres) and is bound by immovable constraints on all sides. Even development of the Cell 1 and Cell 2 area, which is approximately the same size as Cell 3, is very limited in potential for airspace compared to the Cell 4 area. First, approximately 10 vertical feet of airspace is unavailable because of the waste already present there. Second, the area is constrained on all sides, meaning adjacent development is not possible. The pipelines on the southwest boundary, in particular, are problematic, because they prevent joining the new cell with Cell 3, resulting in loss of the "v-shaped" airspace between two adjacent cells. Because of the environmental, logistic, and economic complications listed above, St. Mary Parish removed further development of these two areas from consideration in the site selection process.

After investigating sites within the confines of the current property, St. Mary Parish contacted owners of available properties in the Parish that were at least 200 contiguous acres and located in non-wetland areas generally between Franklin and Morgan City. While the Cell 4 area includes less than 65 acres, at least 200 acres would be required to construct a new landfill because the ancillary areas, buildings, and equipment required and already present at the current St. Mary Parish site would have to be developed at a new site. Six sites were located that met these broad criteria, and they are shown on the figure in Exhibit 28, Alternative Site Evaluation Map. Four of the six sites are in the western end of the Parish

near Franklin and the other two are in the east. Upon initial investigation of the six sites, three were determined immediately to be infeasible for various reasons, which are discussed here:

Site 1 – Site 1 is about 2 miles east-northeast of the center of Baldwin. The property is oddly shaped and consists of about 400 acres, but is crossed in several different places by at least nine oil or gas pipelines, and straddles U.S. Highway 90. The presence of the pipelines and highway reduces the largest section of this property to less than 100 acres, making it infeasible for development as a landfill.

Site 4 – Site 4 is about 4.5 miles south-southwest of Centerville on Parish Road 317 (Bayou Sale Road). The property is about 200 acres, but, again, is crossed by at least nine oil or gas pipelines, as well as Bayou Sale Road, Bayou Sale, and a rail spur. Again, the presence of these many dividing features renders the site infeasible for development as a landfill.

Site 5 – Site 5 is immediately north of Calumet within the Wax Lake East Ring levee. It actually consists of five contiguous properties totaling about 680 acres on the north side of Bayou Teche. The eliminating factor for this site is its proximity to the Williams Memorial Airport; it is immediately across Bayou Teche from the airport, a distance of about 2,000 feet at the closest point. Considering the LDEQ regulations regarding proximity to airports, along with the new FAA restrictions (6 miles, minimum) for a new landfill, this site is infeasible for development as a landfill.

With these three sites eliminated, three potential sites remained for more detailed evaluation. The evaluation of each remaining potential site, including investigation of such criteria as site geology, site hydrology, anticipated impact on populated areas, and travel routes and distances for garbage trucks, among others, is included below. It should be noted here that there are several site characteristics that are common to all of the sites, and those are listed first.

Common Site Characteristics

Wetlands – The site of the Cell 4 contained designated wetland areas of varying quality. As stated above, only properties that are located in non-wetlands were considered as alternative sites. While exclusion of sites containing wetland areas from the search may at first seem to omit potentially superior sites from consideration, in practice this is highly unlikely. Upon review of the available geologic and hydrogeologic information on the Parish (Surface Soils, Aquifer Recharge Potential, Aquifer Use), it is reasonable to assume that, with respect to these criteria, there is not a superior site in the Parish, as demonstrated by the following:

- With respect to aquifer recharge potential, the entire Parish, with the exception of a small area in the northwest of the Parish, is below the "Southern limit of recharge areas for major freshwater aquifers" according to the map entitled *Recharge Potential of Louisiana*

Aquifers. This means the only distinction that could be made between any two areas of the Parish with respect to aquifer recharge potential would be between a site that is above the aforementioned "Southern limit" and a site that is below, with the site that is below being superior as a potential site for development of a landfill because of reduced opportunity to damage the water quality in a freshwater aquifer. The existing site of the landfill is below the "Southern limit," and therefore superior to any site in the Parish that is above that line and equal to any site that is below that line with respect to aquifer recharge potential as it relates to landfill development.

- With respect to groundwater availability, St. Mary Parish comprises three sub-regions as defined in *Groundwater in Louisiana*, a Water Resources Bulletin published by the State of Louisiana. The sub-region that possesses the highest quality groundwater resources is 4B, which covers the western half of the Parish. The next highest quality groundwater resources are available in sub-region 4C, which covers roughly the northern half of the eastern half of the Parish. The lowest quality groundwater resources in the Parish, and indeed in the State of Louisiana, are located in sub-region 5C, which possesses "...no fresh ground water except possibly thin lenses of fresh water floating on salt water." The area of the existing site is designated as 5C, so the site is superior or equal to any site in the Parish with respect to groundwater availability as it relates to landfill development.
- According to the map entitled *Recharge Potential of Louisiana Aquifers*, published by the Louisiana Geologic Survey in 1988, the surface geology of St. Mary Parish is represented by four different soil types: Alluvium, Natural Levees, Delta Plain (Fresh Marsh), and Prairie Terraces. The least common of these in the Parish, Prairie Terraces, exist only around the tops of salt dome formations. The other three surface geology types are more or less equally represented in the Parish, with the Natural Levees occupying the areas immediately surrounding Bayou Teche, Bayou Sale, and Bayou Cypremort, the Delta Plain occupying the majority of the coastal areas, and the Alluvium occupying the areas between the two.
- With respect to landfill development, the Prairie Terraces are completely unsuitable because of the intersection of so many different geologic strata with the surface in such a small area. The Natural Levees are the next worst surface geology type because the predominantly silty content of the surface soils provides opportunity for subsurface transport of potentially contaminated groundwater. The soils of both the Alluvium and Delta Plain areas contain predominantly clay, with other materials also present. The Alluvium also contains silty clay and some sand and gravel locally. The Delta Plain also contains very high organic content, with some peat. As such, comparing the suitability of Alluvium and Delta Plain for landfill development is essentially a comparison of the porosity increasing effects of silty clay, sand and gravel with those of peat and other organic

content. They all have the potential to increase porosity, and local geologic investigation would be required to determine the exact make-up and extent of the soils at any potential site, but in general, organic material would be at least equal to, if not superior to silty clay, sand, and gravel with respect to minimizing sub-surface groundwater flows.

- The area of the existing site is designated as Delta Plain on the aforementioned map, so the site is superior or equal to any site in the Parish with respect to surface geology as it relates to landfill development.

Based on the above discussion of the geology and hydrogeology of St. Mary Parish, one can conclude that there is not an area in the Parish with demonstrably superior characteristics for landfill development with respect to geology and hydrogeology compared to the area on which the site is located. As such, if one is searching for an environmentally superior site in St. Mary Parish, one must look to other important environmental criteria. Because there is substantial environmental benefit to continued operation of an existing landfill versus developing a new site, the environmental advantage in terms of this other criterion must be substantial to overcome the disadvantage of developing a new site. Hence, if one looks to wetlands impact as an important, albeit secondary, criterion in selecting a site for landfill development, it follows that the advantage in terms of wetland impact would need to be substantial to indicate a relocation of the project.

In other words, if a site has even a minor impact on wetlands, it cannot be environmentally superior to the existing site. This criterion is even more relevant at this point because the wetlands at the existing site have already been impacted and mitigated, and these activities were permitted by the Army Corps of Engineers (Exhibit 30). In addition, the advantages of the existing site with respect to other, more important criteria (geologic, hydrogeologic, and same site expansion) must be considered. Therefore, when setting the criteria for the alternate site investigation process, St. Mary Parish felt that, in order to have any potential for being a superior site, a potential site would need to have no impact on wetlands, hence the initial requirement that potential sites not include wetlands.

Aquifer Recharge – According to the map *Recharge Potential of Louisiana Aquifers*, published in 1988 by the Louisiana Department of Environmental Quality, all of the sites considered, as well as the current site of the landfill, are denoted as being in “Areas that do not recharge major Louisiana freshwater aquifers.”

Groundwater Access – While the Chicot Aquifer underlies most of St. Mary Parish, it is briney and unsuitable for most uses in all eastern parts of the Parish (east of the Wax Lake Outlet). Specifically, Sites 1 through 4 are located in a region classified as “4B,” which has large quantities of hard water available from the aquifer; Sites 5 and 6 are located in a region classified as “4C,” which has hard water available from the aquifer, but in the same sand unit with salt water; and the current site of the

landfill is located in a region classified as "5C," which has little or no potable water available from ground water sources. (All above information taken from "Ground Water in Louisiana", published in 1960 by the Louisiana Department of Conservation, the Louisiana Geological Survey, and the Louisiana Department of Public Works.) Consequently, water supplies in the eastern end of the Parish are obtained almost exclusively from surface water sources, whereas water supplies in the western end of the Parish are obtained from both groundwater and surface sources.

Surface Geology – According to the "Geological Map of Louisiana," published in 1984 by the Louisiana Geological Survey, all of the alternative sites considered are located in areas denoted as "Natural Levees." The soils in these areas are composed of "...gray and brown silt, silty clay, some very fine sand..." As such, the soils in these areas are somewhat resistant to water transport, but do contain silt and sand, potentially having some avenues for permeation. The current site of the landfill is located in an area denoted as "Delta Plain, Fresh Marsh," the soils of which are composed of "...gray to black clay of very high organic content, some peat..." Being mostly clay and lacking the silts and sands of the Natural Levees, these soils are considerably less permeable than those found in the Natural Levees.

Black Bear Habitat – All properties considered as alternative sites for the landfill are currently being utilized for sugar cane production. Of the three alternative sites evaluated in detail, all are adjacent to forested wetlands or to the Atchafalaya Basin, which means that they would all be classified as "Proposed Critical Habitat" for the Louisiana Black Bear under the definition proposed by the U.S. Fish and Wildlife Service. (Habitat: Cypress-tupelo swamp, cypress swamp, bottomland forest, coastal marsh, sugarcane fields adjacent to Atchafalaya Basin.) The area utilized for Cell 4 is also classified as "Proposed Critical Habitat."

The following three properties were selected for further evaluation as alternative sites for the placement of St. Mary Parish's Landfill project. They were chosen based on not being eliminated in the previous phase of evaluation. All references to land use and site conditions at these subject properties are based on those determined to exist at the time of the study. Land use and site conditions may have since changed.

Site 2 – Site 2 is about 1 mile east of the center of Franklin, directly across Bayou Teche (1/4 mile) from residential areas of Franklin, fronting the north side of State Highway 87 (La 87) for about 1.5 miles. No archeological or historical surveys were conducted for the site, but it is highly unlikely that any archeological or historical sites are present there because the land has been under cultivation for many years. Because of its proximity to the city of Franklin, the site is within a mile of several registered historical landmarks, mostly antebellum structures.

The tract is approximately 240 acres and is approximately $\frac{1}{4}$ mile deep. It is approximately 2.5 miles from the Atchafalaya Basin West Levee and is abutted on the back by forested wetlands that run from the base of the levee west to behind the west end of the property. It is classified as "previously converted wetlands" and is kept dry by private levees and pumps. The tract is currently utilized for sugar cane production, but is part of a mitigation land bank awaiting commitment and planting. Because of the ability to control water levels, the planned reforestation species for this tract is cypress. Site 2 is generally two feet above msl and, according to FEMA's Flood Insurance Rate Map, lies mostly in Flood Zone C.

Access to the site from Franklin is via a bridge that crosses Bayou Teche in the center of town and intersects La 87. Access from the east end of the Parish is across either this bridge or a bridge that crosses Bayou Teche in Centerville, to the east. Either route requires transport of the waste through residential and commercial areas of one of the two communities.

Site 3 – Site 3 is about 1.5 miles east-southeast of Site 2, directly across Bayou Teche ($\frac{1}{4}$ mile) from the community of Centerville, fronting the north side of La 87 for approximately $\frac{3}{4}$ mile. While no archeological or historical surveys were conducted for the site, it is highly unlikely that any archeological or historical sites are present there because the land has been under cultivation for many years. It is likely, however, that, because of its proximity to Bayou Teche and the community of Centerville, it is within a mile of at least one registered historical landmark (antebellum home).

The tract is approximately 350 acres and is approximately $\frac{3}{4}$ mile deep. It is approximately $\frac{1}{4}$ mile from the Atchafalaya Basin West Levee and is abutted on the back by forested wetlands that run from the base of the levee west to behind Site 2. Like Site 2, it is classified as "previously converted wetlands" and is kept dry by privately owned and operated levees and pumps. The tract is currently utilized for sugar cane production, but is part of the same mitigation land bank awaiting commitment and planting. Because of the ability to control water levels, the planned reforestation species for this tract is cypress. Site 3 is generally two feet above msl and, according to FEMA's Flood Insurance Rate Map, lies partially in each of Flood Zones A and C.

Access to the site is essentially the same as that for Site 2, but the site is closer to the Centerville Bridge than to the Franklin Bridge. Transport of waste from the east end of the Parish would almost certainly occur through Centerville, since the Franklin route would be well out of the way.

Site 6 – Site 6 is actually two contiguous properties, each of which satisfies the minimum 200-acre size requirement. The site is approximately 2 miles northwest of Morgan City, within the Wax Lake East Ring levee, between Bayou Teche and the Atchafalaya River, on what is called Berwick Island. Site 6A, the westernmost of the two properties, is crossed by two north-south oil pipelines, essentially dividing the property into two 100-acre tracts. Site 6B, the easternmost of the two properties,

includes as about half of its area a long, thin section between the Wax Lake East Ring Levee and Bayou Teche, rendering it impractical for development as a landfill; however, piecing together the section of 6A that is east of the pipelines and the western section of 6B would provide a site that is suitable in size and shape for landfill development.

The site is about 2.5 miles from the town of Berwick, and about 2 miles from Morgan City. Berwick High School and the Berwick Water Works are about 1.2 miles south of the site. While no archeological or historical surveys were conducted, it is highly unlikely that any archeological or historical sites are present there because the land has been under cultivation for many years. It is also unlikely that any historically or archeologically significant sites are near (within 1 mile) the site. The properties about the Wax Lake East Ring Levee on the north, which is the containment for the Atchafalaya Basin at this point. The site is generally two feet above msl, and lies partially in each of flood zones A1, B, and C.

Access to the site from U.S. Highway 90 would be through the city of Patterson to the bridge over Bayou Teche, and then via Parish Road 108, which runs from the bridge at Patterson to the property. Parish Road 108 is a gravel road that would require improvement to all-weather use to provide adequate access to the site from the Patterson Bridge, a distance of about seven miles.

A comparative evaluation of site characteristics of Sites 2, 3, and 6 and the existing landfill site leads to the conclusion that the existing site is superior, with respect to quality for development as a landfill, to those considered above, even though there are certain aspects of the alternative sites that were superior. The reasoning behind this conclusion follows.

First, it is important to note that, by design, each of the alternative sites was superior to the existing site on one important environmental criterion; wetlands. That is, no site was considered as an alternative unless it was in a non-wetland area; so, since the existing site contained wetland areas at the time of this study, each of the alternative sites was superior to the existing site with respect to impact on wetlands. However, this line of reasoning is now irrelevant considering that the wetlands at the existing site have already been impacted and mitigated, and these activities were permitted by the Army Corps of Engineers.

When one considers soil permeability and effects on aquifers, arguably the two most important environmental criteria when evaluating a site for development as a landfill, the existing site has characteristics that are superior to those of each of the alternative sites. While the sites are neutral with respect to aquifer recharge, all being south of the "southern limit of recharge areas for major freshwater aquifers," the existing site is superior when one considers aquifer usage. Therefore, the minimal impact to wetlands caused by development of Cell 4 was considered acceptable to LDEQ and the Corps of Engineers as evidenced by issuance of permits.

The quality of the water in the aquifer degrades as one moves from northwest to southeast in St. Mary Parish, going from large quantities of fresh water available in the northwest to little or no potable water available in the southeast. Sites 2 and 3 are both in an area in which the aquifer is usable, evidenced by the fact that there are numerous water wells in the area. Water quality in the aquifer under Site 6 is marginally worse than that under Sites 2 and 3, but still available. The existing site, on the other hand, is in a region classified as "5C," which has little or no potable water available from ground sources. Again, this fact is evidenced by the complete absence of operational water wells in the area of existing site. The implication here is that the impacts of groundwater contamination as a result of some failure of the landfill containment system would be far less severe at the existing site than at either Site 2 or 3, and marginally less severe than at Site 6.

When one considers surface geology, the existing site is also superior to the alternative sites. While all of the sites are on alluvial soils, there is a distinction between the soil quality below the alternative sites and the existing site. Each of the alternative sites, being situated next to Bayou Teche, is on soil denoted as "Natural Levees," which consists of "...gray and brown silt, silty clay, some very fine sand..." while the existing site is situated on soil denoted as "Fresh Marsh," the soils of which are composed of "...gray to black clay of very high organic content, some peat..." The distinction between the two is the silt and sand content of the "Natural Levees," as opposed to clay in the "Fresh Marsh." The likelihood of the presence of more silt and sand under the alternative sites creates a greater potential for soil permeation of contamination in the event of a failure of the containment system than does the clay that underlies the existing site.

After evaluating what could be considered the "major" environmental criteria for selecting a site for a landfill, one moves to other considerations. Among these are haul distances, impact on populated areas, and infrastructure issues. Since the landfill receives all MSW from the rural areas of the Parish, as well as the various municipalities in the Parish (Morgan City, Franklin, Berwick, Baldwin, and Patterson), the greatest concentration of incoming waste originates in the eastern part of the Parish (Morgan City, Berwick, Patterson, Amelia, and Bayou Vista); therefore, placement of the landfill in the eastern end of the Parish would result in the fewest vehicle miles required for transport of waste from the points of origination to the landfill. In this light, Site 6 and the existing site compare favorably to Sites 2 and 3. In addition to the increased vehicle miles required by siting the landfill at either Site 2 or Site 3, the route of transport from the various parts of the Parish to these sites will be through the middle of either the community of Centerville or the City of Franklin. Locating the landfill at Site 6 has a similar issue, requiring transport through the middle of the city of Patterson. In addition, the route to Site 6 from U.S. Highway 90 is approximately 8.5 miles, 7 miles of which is a gravel road that would require improvement to all-weather service. The existing site is located on a Parish road approximately ½ mile from Highway 90 and does not pass through any residential or commercial developments.

Beyond transportation issues, there is the issue of proximity to population centers with respect to odors and aesthetics. Sites 2 and 3 are each only about ¼ mile from populated areas of Franklin and Centerville, respectively; Site 6 is approximately 2 miles from Morgan City, the closest population center; and the existing site is 1 to 1.5 miles from Berwick and Bayou Vista, the two closest population centers. Depending on the prevailing wind, Sites 2 and 3 certainly carry a higher potential for odor complaints, regardless of the control measures taken at the facility. According to the Louisiana State Climatologist's Office, predominant winds in the region are generally from the south. The southerly wind creates more issues for the existing site, since the populated areas are north of the site, but, as discussed below, this has not caused a significant problem. Any northerly winds are more likely to create odor issues for Sites 2, 3, and 6, since all of these sites are north of the nearest respective populated areas. Sites 2 and 3, especially, are subject to odor transfer issues, since they are located so close to Franklin and Centerville, respectively. Site 6 is actually the most remote of the four sites considered, and the existing site is next.

The following is a summary of the above comparisons:

Site 2: Site 2 was superior to the existing site with respect to wetlands; however, as mentioned above, wetlands at the existing site have already been impacted and mitigated, as required by the permit received from the Army Corps of Engineers. Site 2 is inferior to the existing site with respect to groundwater access, surface geology, transportation issues, and proximity to population centers.

Site 3: Site 3 was superior to the existing site with respect to wetlands; however, as mentioned above, wetlands at the existing site have already been impacted and mitigated, as required by the permit received from the Army Corps of Engineers. Site 3 is inferior to the existing site with respect to groundwater access, surface geology, transportation issues, and proximity to population centers.

Site 6: Site 6 was superior to the existing site with respect to wetlands; however, as mentioned above, wetlands at the existing site have already been impacted and mitigated, as required by the permit received from the Army Corps of Engineers. Site 6 is superior to the existing site with regard to its proximity to population centers. However, Site 6 is inferior to the existing site with respect to groundwater access, surface geology, transportation issues, and infrastructure improvement requirements.

Based on these comparisons, it is clear that the existing site is superior to any of the alternative sites investigated for this study, even if only the "major" criteria (geology and hydrogeology) are considered. Adding the other criteria to the evaluation only confirms this conclusion.

In addition to the environmental advantages that the existing site possesses relative to the alternatives studied, economic considerations, including the cost of replacing the operations area of the facility and implementing the necessary infrastructure upgrades, render the project financially infeasible if relocation

of the landfill facility were required. This being the case, location of the project on the existing site is irrevocable and continued operation of this facility is the most environmentally-sound and cost-effective solution.

The site is located in an area that was determined by the Army Corps of Engineers in 1976 not to be a wetland, but was subsequently designated in 2000 as "containing wetlands" (Exhibit 29). An application was submitted to the Army Corps of Engineers for the construction of Cell 4; the application was approved by issuance of Department of the Army Section 404 Permit No. WI-20-000-3968 (Exhibit 30). The permit required onsite mitigation of 11.6 acres through planting of eight species of bottomland hardwood one-year old seedlings. Restoration also involved removal of invasive species. An additional 16.8 acres of onsite land will be mitigated upon closure of Cell 4. A total of 44.4 acres at the facility have been placed in a conservation servitude. The Parish also contracted with Louisiana Wetlands, LLC for the restoration of bottomland hardwoods on 32 acres of offsite abandoned agricultural land managed and operated in accordance with the Bayou Teche Wetlands Mitigation Area Agreement dated January 28, 1998.

To compensate for the fact that the existing site is situated in a previously wet area with relatively weak soils, the following design and operational techniques were included in the design of the facility:

1. Planned site preparation required minimal excavation, with no off-site disposal of excavated soil.
2. A site subsurface drainage system was installed below the liner system to facilitate removal of water from below the cell prior to and during construction.
3. A geosynthetic clay liner (as described in the paragraph below) was used in addition to compacted clay as the secondary containment system.
4. Leachate collection occurs at the center of the cell, so that soil settlement will increase, rather than decrease, the slope of the leachate collection lines.

The Louisiana Department of Wildlife and Fisheries has indicated (Exhibit 31) that the site is partially on occupied habitat of the Louisiana Black Bear, but is not in or near any wildlife management areas or other environmentally sensitive areas. In addition, a Joint Public Notice issued on October 25, 2000 by the Army Corps of Engineers and LDEQ states that their "...initial finding is that the proposed work would neither affect any species listed as endangered by the U.S. Departments of Interior or Commerce, nor affect any habitat designated as critical to the survival and recovery of any endangered species." In order to minimize the impact of the landfill on any local Louisiana Black Bear population, plans for site development include enclosure of the active areas of the landfill with putrescible waste with an electrified fence should foraging by bears become an issue; thus, preventing the bears from contacting the waste.

In addition, the daily application of cover material described in the Facility Operations Plan (Appendix B) will minimize odors that might tend to attract bears to the waste.

As indicated in a letter from the Louisiana Department of Culture, Recreation, and Tourism, (Exhibit 32), the site is not in or near any historic or culturally significant areas. The Louisiana Department of Natural Resources has issued a letter stating that the project is exempt from the need for a Coastal Use Permit (Exhibit 33).

There is no heavy industry, chemical process, or refinery operations in the vicinity of the site, and the site is in a remote, unzoned location. While there is not precedent for chemical contamination near the site, the soil and water could not be considered "pristine," as this is currently the location of a Type I/II/III landfill and is within a levee-protected drainage area that includes the town of Berwick and the community of Bayou Vista. The response to §521.A.1.c indicates that 76% of the property within a three-mile radius is undeveloped.

The entire site lies in a low area known as "fast lands," protected by the Wax Lake East Ring Levee from flooding caused by the Atchafalaya River and storm tides. Rainfall runoff within the ring levee flows through existing channels and borrow canals to a pump station, where it is discharged to the Gulf Intracoastal Waterway. Nonetheless, according to the Flood Insurance Rate Map, St. Mary Parish, LA, Community Panel No. 220192 0175 E, prepared for the Federal Emergency Management Agency and revised June 18, 1996 (Exhibit 34 – Flood Zone Map), the site is located in a 100-year flood zone, A3, with a 100-year flood elevation of 1.5 feet above mean sea level (msl). The natural ground elevation in the majority of the Cell 4 area was between -1' and 0' msl. The top of the perimeter levees that surround Cell 4 are at an elevation of 5.5 feet above msl, making them 4 feet above the 100-year flood level, and the levee surrounding the Oxidation Pond is at an elevation of at least 4 feet, which is 2.5 feet above the 100-year flood level. The dikes are stabilized by means of maintenance of vegetation and other Best Management Practices (BMPs) aimed at minimizing soil erosion. It should be noted that the additional acreage to be elevated and enclosed by the levee is approximately 64 acres; therefore, the impact on the temporary water storage capacity of the flood plain is negligible. Based on an estimated flood plain of 13,247 acres (the area of Flood Zone A within the Wax Lake East Ring Levee and contiguous with the flood plain of the site), the enclosure of these 64 acres will result in a minimal increase in the 100-year flood level (refer to the responses to §521.C).

While the area of the site might normally be subject to storm surge associated with a hurricane, the aforementioned Wax Lake East Ring Levee (Levee), which completely surrounds the area, should prevent any storm surge from reaching the site. In addition to being protected by the Levee, the site is too far inland to require consideration of damage from wave action. Because of the design of the final cover, including a slope/bench configuration with a soil layer 2 feet thick, wind damage is not expected.

The site is not located in an aquifer recharge area (Exhibit 35 – Aquifer Recharge Area Map). The Chicot Aquifer underlies the site, but is not a source of fresh water at this point, since it contains brackish to saline water. In addition to the Chicot Aquifer, there is what appears to be a continuous stratum of sand below the site starting at an elevation of approximately –80 feet, that is, in all likelihood, either part of the Chicot Aquifer or connected to it. Local water supplies are extracted from surface water, primarily the Atchafalaya River and associated lakes. Only one registered water well exists within a mile of the facility; an oil rig supply well that has been plugged and abandoned.

Groundwater at the site is at or near the natural ground surface, fluctuating based on river levels of the Atchafalaya. Groundwater flow is generally toward the west-southwest at a rate of 1×10^{-4} feet per day (refer to §521.E.1 for details). Since the water table is normally at or near ground surface in this area and the landfill excavation was only five feet below natural ground in the center of the site, hydraulic gradients should actually be into, rather than out of the majority of the landfill cell. This means that, should a leak occur in the liner system, groundwater would actually flow into, rather than out of, the cell, further reducing the risk to local groundwater quality.

As indicated in Subpart A, above, the facility does not handle or dispose of hazardous waste, and the design and operational measures taken (see Subpart E) minimize any risks associated with the operation of a landfill, so the potential health risks associated with the project are negligible. In addition to the onsite measures taken to minimize the risks associated with this project, the location of the site itself further minimizes these risks. Within a three-mile radius of the facility, 76% of the land is undeveloped. Within this three-mile radius, residences, the vast majority of which are over a mile away, occupy less than 9% of the area. There are no schools within a mile of the site and no hospitals within three miles of the site. (Refer to 521.A.1.c for detailed information regarding land use in the vicinity of the site.) The predominant wind direction in the area is from the south, which means that the community of Bayou Vista would be the primary receptor in the event of a “bad air” day. To date, no “bad air” days have been recorded at the facility. Based on the operating record of the facility and the design and operational measures mentioned above, there is no reason to expect any in the future.

The site is not in an ozone non-attainment zone. The two air quality issues that would most commonly be associated with a Type I/II/III landfill are emission of garbage odors during the active filling process and emission of methane from the vent system during the active and post-closure periods. To control the garbage odors generated during the filling process, daily and interim covers will be applied as needed, but at least as often as required by LDEQ regulations. In the event unusually strong odors are present, facility employees are required to take additional corrective measures (refer to Appendix B, Facility Operations Plan).

Plans for monitoring and control of methane during the active and post-closure periods include monitoring of vent gasses and implementation of shut-down procedures and corrective actions in the

event of high methane levels (refer to Appendix B, Facility Operations Plan and Appendix H, Closure and Post-Closure Plan). As mentioned earlier in Subpart C, St. Mary Parish is considering an alternative technology that provides for in-situ treatment of landfill waste by injecting air and leachate into the waste, thus promoting aerobic decomposition of the waste. If implemented, this technique will reduce or eliminate the generation of methane gas and its associated odors during the active and post-closure periods.

In any discussion of whether the potential adverse environmental effects of facility have been avoided to the maximum extent possible, the effect of the geologic and hydrogeologic characteristics of a site cannot be overlooked. Indeed, in many circumstances, it could be argued that the geology of the facility could have a greater "protective" effect than any pollution control device or operational constraint. As noted above, the site was originally chosen – and is proposed for continued operations – in part because of the favorable geology and hydrogeology of the site. Section 521.D includes in-depth discussion of the geologic characteristics of the site and Section 521.E includes in-depth discussion of the subsurface hydrology of the site. Appendix E contains the numerous geotechnical studies and reports that have been conducted on the site since its original selection as a landfill site.

The risk of leachate contamination of aquifers is a critical concern, and has been recognized as a basis for denial or reversal of LDEQ permits.⁵ Where there is no potential for aquifer recharge in the area of the landfill – and the soil underlying the area inhibits the migration of leachate – locational characteristics alone act to significantly, if not completely, reduce what is perhaps the greatest threat to the environment posed by landfills. As noted on the Aquifer Recharge Area Map (Exhibit 35), the facility location is not in or near an area of high, moderate or even low recharge potential for any aquifer. In regard to soil types, as described in the responses to §521.D, the site is located on alluvial soils, which consist of clays and silty clays which act as a natural barrier to the migration of leachate in the unlikely event that all other control measures would fail. Both generally available information and site-specific borings confirm the existence of layers of clays and silty clays underlying the facility. In regard to faults, the application demonstrates that there are no known faults in the area or within 1 mile of the site boundaries. Clearly, the site characteristics act to minimize, to the maximum extent possible, threats to groundwater.

The conclusion ultimately reached, based on consideration of all the above factors, is that the current site is the location with the least adverse environmental impact and the greatest non-environmental benefits.

⁵ Reference is made to the LDEQ's decisions related to the Cade I and Cade II landfill proposals.

523.E. a discussion and description of the mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits.

While this facility is not part of any regional waste management master plan, it also does not conflict with any such plans. Although not currently active, the Louisiana Resource Recovery and Development Authority previously confirmed this fact via written communication (Exhibit 36). In the absence of a master plan, the permitted Municipal Solid Waste (MSW) landfills in the State have been developed somewhat evenly with respect to geography and population. The nearest permitted MSW landfill to St. Mary Parish is over 55 miles away by road, and the next nearest available landfill is over 70 miles away. Thus, the facility provides Type I/II/III landfill services to St. Mary Parish and all adjoining parishes, none of which currently has a permitted Type I/II landfill within its boundaries (the Terrebonne Parish Ashland Landfill is shown on LDEQ's list of Permitted Type I & II Facilities as "closing soon").

As the provider of solid waste disposal services for the Parish, the Parish Government has integrated all aspects of waste management to the maximum extent possible, and this facility is part of that integrated system. MSW from Franklin is collected by Waste Management, while MSW from Berwick, Patterson, and unincorporated areas of the Parish is collected by SWDI, LLC. Collection of MSW in Baldwin and Morgan City is performed by those municipalities. Upon collection, all MSW generated within the Parish is delivered to either the St. Mary Parish Landfill, which is located on the east end of the Parish, or to the Parish's West End Pick-up Station, which is located in Franklin, for consolidation and transfer to the landfill. Type III waste is collected from local municipalities and unincorporated areas, as well as, delivered to the facility by local citizens, businesses, and contractors. Similarly, Type I waste is anticipated for delivery to the facility by local citizens, businesses, and contractors.

In an attempt to extend the useful life of the landfill and provide a waste minimization opportunity to their citizens, the Parish began a curbside recycling program throughout the Parish in 1992, discussed in detail in §523.C, above. The program was operated, via contract with Waste Management, for almost three years, but was discontinued due to lack of participation. As a substitute for the discontinued curbside-recycling plan, the Parish now provides recycling receptacles at various locations throughout the Parish, including at the landfill and the Parish's West End Pick-up Station, for use by all residents.

In addition to the above components of the integrated waste management system, the Parish also separates various recyclable and reusable materials at the landfill, including used tires and white goods (refrigerators, washing machines, etc.) and other scrap metal. The Parish collects and stores used tires for processing and re-use within the State. In fact, the construction of Cell 4 employed shredded used tires as a subsurface drainage medium.

Also as part of the waste management plan for the Parish, incoming segregated Type III wastes are deposited in a separate section of the landfill permitted for such wastes (Cell 3A), thus extending the life

of the Type I/II cells, reducing the overall cost of landfilling waste in the Parish, and reducing the amount of Type I/II contact water and leachate.

An alternative technology implemented by the Parish to extend the life of the landfill involves the use of alternate daily cover materials, as approved by issuance of Permit No. P-0193R1; these alternative materials include tarps, Topcoat® (or similar spray-on slurry), and/or foam. The facility currently uses a spray-on slurry material manufactured by Topcoat®. According to Central Fiber Corporation (manufacturer of Topcoat®), in three months, at six inches per day, 33 feet of daily cover material will be added over the waste, while utilization of Topcoat® will add only 33 inches of material (<http://www.centralfiber.com/adc.shtml>). Operational methods and additional data for tarps, foam, and Topcoat® (or similar spray-on slurry) are included in the Facility Operations Plan.

Regarding quality assurance controls and out-of-spec, rejected, and non-compatible wastes, refer to the Facility Operations Plan (Appendix B) and the Industrial Waste Acceptance Quality Assurance/Quality Control Plan (Appendix D).

As discussed in Subpart 523.D, there are two specific environmental issues that were addressed at this site in order to minimize the environmental impact of the facility: Louisiana Black Bear habitat and wetlands.

- a) In order to minimize the potential for impact on any Louisiana Black Bears in the vicinity of the site, the active areas of the landfill property will be surrounded by an electrified fence should foraging by bears become an issue. The fence will consist of three strands of electrified wire. This type of fence has been proven in similar applications to protect bears from any interaction with wastes in open cells. In addition, the smallest practicable working face will be maintained at all times, minimizing odors from the landfill, and the working face will be covered with daily and interim covers according to the requirements of §711.B.2. Cell 4 was located to avoid the nearby area that has been designated by the Louisiana Department of Wildlife and Fisheries to be "Occupied Louisiana Black Bear Habitat," as well as a 150 foot buffer zone around said area, allowing for continued use of the wooded area by Louisiana Black Bears.
- b) In order to minimize the potential for impact on the wetlands adjacent to the site, St. Mary Parish has incorporated many water quality protective measures into the design and operation plans of the facility. These measures are discussed below, and include the waste and water management procedures identified in the Facility Operations Plan (Appendix B), a Stormwater Pollution Prevention Plan (SWPPP), a Groundwater Monitoring Plan (Appendix A), and compliance with the NPDES system of pollution elimination. In addition to these measures being taken to minimize the impact this project may have on area wetlands, St. Mary Parish has mitigated the unavoidable loss of wetlands due to the development of Cell 4 by enhancing, restoring, or creating other wetlands according to the requirements of the U.S. Army Corps of Engineers.

The other mitigating measures utilized at the site, as set forth in the responses to §521, either meet or exceed all applicable regulatory requirements. A review of the primary mitigation systems and techniques demonstrates that there are no mitigation measures that would offer more protection to the environment than those currently utilized without unduly curtailing non-environmental benefits. A listing of mitigation measures incorporated into the design and operational plans of the facility – and particularly those that exceed the regulatory requirements – demonstrates that there are no additional mitigation measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits.

- a) **Liner System:** St. Mary Parish's liner system (refer to the response to §521.F.4.b), which utilizes an innovative secondary synthetic liner in conjunction with a compacted clay liner, provides significantly greater protection against the migration of leachate than the sole use of the secondary liner required under the regulations, and provides a higher level of environmental protection for groundwater.
- b) **Surface Run-off Controls and Other Measures to Reduce Generation of Leachate:** St. Mary Parish's surface run-off control system is designed to minimize the amount of leachate generated by preventing non-contact water from entering the leachate collection system (refer to Appendix B, Facility Operations Plan). Additionally, the use of geonet and geomembrane in the final cover system will expedite the removal of stormwater that passes through the topsoil layer above, thereby reducing the amount of stormwater that infiltrates the waste and, consequently, the creation of leachate. The geonet will also reduce cover soil erosion by preventing saturation of the upper vegetated soil layer.
- c) **Landscaping/Visual and Access Barriers:** The facility is virtually out of site from the general public, except for the office/weigh station area, the exterior of which is maintained as appropriate by facility personnel. Access to the facility is restricted by a combination of a surrounding borrow canal and a posted chain link fence. In addition, the active cells of the landfill with putrescible waste will be surrounded by an electrified fence to prevent bears and other animals from contacting the waste should foraging by bears become an issue. (See responses to §521.B.1)
- d) **Groundwater Monitoring:** An extensive groundwater monitoring system (refer to the responses to §521.F.4 and the Groundwater Monitoring Plan in Appendix A) will ensure that if groundwater contamination does occur in spite of the control measures incorporated into the facility, it will be rapidly detected to allow corrective measures to be implemented.
- e) **Efficient Methane Collection and Venting System:** St. Mary Parish's facility will safely and efficiently collect and vent methane gas to avoid risks associated with buildup of methane gas (refer to the responses to §521.J).

- f) **Operational Controls:** Adherence to St. Mary Parish's Facility Operations Plan (Appendix B), Stormwater Pollution Prevention Plan (on file at the facility's offices), and Industrial Waste Acceptance Quality Assurance/Quality Control Plan (Appendix D) will assure that only appropriate wastes are accepted at the facility and that other potential adverse impacts are minimized.
- g) **Locational Characteristics:** The advantages of the favorable surface geology and hydrogeology at the site, as compared with other available sites in the Parish, provides significant protection against adverse environmental impacts. In addition, maintaining the location of the facility at its current site, rather than an alternative location greatly minimizes real and potential environmental costs, as described earlier in this document. (Refer to §523.D for a detailed discussion of this issue.) The fact that the site is the location of an existing solid waste disposal facility further minimizes the adverse impacts that would result from siting a new facility to achieve the same disposal capacity.

A listing of mitigation measures incorporated into the design and operational plans of the facility with regard to RACM waste acceptance demonstrates that there are no additional mitigation measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits.

- a) **RACM Waste Approval and Recordkeeping:** Each RACM waste stream will be subjected to the special waste approval process and to special record keeping requirements. All RACM waste transporters will be required to submit a State of Louisiana Asbestos Disposal Verification Form (ADVF) upon delivery of friable asbestos waste to the landfill. RACM waste will not be accepted and a Waste Discrepancy/Rejected Load Report will be completed when: RACM waste arrives without an ADVF; RACM waste arrives and the waste material does not match the description or quantity on the ADVF; or RACM waste arrives, and the information on the ADVF is incomplete or incorrect. All records, logs, and forms regarding RACM waste will be maintained for at least two years in the landfill office. The grid coordinates, depth (elevation), quantity (cubic yards), and site map marked with location will be maintained for all RACM waste in the landfill office until closure of the facility. In addition, a copy of all records of RACM waste disposal locations and quantities will be submitted to LDEQ (Office of Environmental Services, Air Permits Division) upon closure of the facility. Finally, within 60 days of closure and in accordance with State law, a notation will be attached in perpetuity to the deed of the facility property and on any other instrument that would normally be examined during a title search stating that: the land has been used for disposal of RACM waste; containing the survey plot and record of the location and quantity of RACM waste disposed of at the facility; and that the site is subject to LAC 33:III.Chapter 51.Subchapter M and the certification provisions in LAC 33:III.2799.Appendix A – Agent Accreditation Plan.

- b) **RACM Waste Packaging:** RACM waste will only be accepted when it is in wetted conditions and after it has been placed in closed, unruptured 6 mil minimum polyethylene double bags or in other tightly closed containers. If bagged, the bags shall be "goose-necked" and double tied. Individual bags must be of a weight and size that can be easily handled by the transporter. All RACM waste containers must be pre-approved by the Landfill Manager prior to disposal at the St. Mary Parish Landfill. Each bag or container which contains RACM waste must have a warning label meeting the requirements set forth in Section 3.3 of Appendix D.
- c) **RACM Waste Operations:** The Landfill Manager will ensure all RACM waste is carefully dumped and unloaded, placed in the proper location (according to the assigned grid coordinates) and covered. RACM waste will only be accepted into Type I/II Cell 4. Deposition or temporary storage of RACM waste in any other area of the facility will be strictly prohibited. There shall be no visible emissions to the outside air from any active waste disposal area within the landfill where asbestos-containing waste material has been deposited. The Landfill Manager will implement the contingency plan in the event of accidental spills. The disposal area will be away from non-essential personnel. The disposal area will be an excavation, depression in the working face, or at the toe of the slope. Immediately after the generator/transporter's vehicle is moved away from the disposal area, the waste will be covered in accordance with the requirements of LAC 33:III.5151.N.3. Cover material will be applied prior to compacting the waste so as not to rupture the containers or disturb the waste. RACM waste will not be placed within 15 feet of final grade (or slope) or within 15 feet of intermediate grade slope. LDEQ (Office of Environmental Services, Air Permits Division) will be notified in writing at least 45 days prior to excavating or otherwise disturbing any RACM waste that has been deposited within the landfill and covered. In accordance with LAC 33:VII.711.E.3.a, a geosynthetic clay liner in conjunction with a 24" minimum thickness of interim-compacted cover layer, where applicable, will be installed over Cell 4 as part of the final cover system. In addition, a low-density polyethylene (LDPE) geomembrane liner will be installed over the crown and benches and a minimum of 12" of topsoil will be installed to support vegetative growth.
- d) **Protection Equipment:** Each St. Mary Parish Landfill employee who the Landfill Manager determines is likely to be exposed to RACM waste will be supplied with disposable clothing (coveralls and gloves) and respirator. Disposable coveralls will be worn over normal working attire. St. Mary Parish Landfill asbestos management personnel will utilize NIOSH-approved asbestos protection full-face or half-face respirators with an approved filter (P100 or equivalent) during all RACM waste handling operations.
- e) **Personal Hygiene:** After the RACM waste has been buried and prior to leaving the immediate work area, and before entering eating, smoking or drinking areas, all St. Mary Parish Landfill employees involved with disposing the RACM waste will remove disposable coveralls and gloves and seal them inside a plastic bag. The respirator will be the last piece of personal protective gear to be removed. As soon as possible after removal of personal protective gear, employees will wash their hands and face. Uniforms worn under the disposable coveralls and other potentially contaminated clothing to be laundered will be sealed in a plastic bag.

- f) **Employee Training:** Employees will be trained prior to being assigned to RACM waste management duties and annually thereafter. Employees will receive training in the proper management of RACM waste, what it is, and its potential health effects if mismanaged. In addition, employees will be informed of the industrial hygiene monitoring, its purpose and meaning, and of their right of access to that information. Included in the subject of proper management of RACM waste will be: standard operating procedures; local policies, procedures and regulations; proper use of personal protective equipment; and good personal hygiene practices. All training will be documented.
- g) **Informing Employees:** If monitoring is required and results of asbestos monitoring indicate that concentrations of asbestos fibers exceed the permissible exposure limit (PEL) in accordance with 29 CFR 1910.1001 (0.1 fiber per cubic centimeter of air as an eight hour time weighted average (TWA) as of July 1, 1999), personal monitoring results will be reported to affected employees within five (5) days of receipt of results.
- h) **Fencing:** A chain-link fence is located across the front of the facility and is posted with signs prohibiting trespass. The only vehicular access point to the site is through the front gate in the chain link fence at the facility entrance, which is continuously manned during operating hours and locked during non-operating hours. Perimeter ditches and canals, combined with the chain link fence across the front, restrict human trespass and prevent unauthorized vehicle access to the facility. The only vehicular entry point to the neighboring Lawrence property is through the front gate of the landfill.
- i) **Signage:** At the front gate is a sign that clearly states what types of waste are accepted at the facility, as well as a list of those wastes explicitly prohibited from disposal at the facility. In addition, a sign stating, "Asbestos Waste Disposal Site. Do Not Create Dust. Breathing Asbestos is Hazardous to Your Health." will be posted in accordance with LAC 33:III.5151.N.2 near the access ramp to Cell 4.

For more detailed information regarding the mitigating measures incorporated into the design of the facility and into the operational and institutional controls utilized at the facility for RACM waste acceptance and disposal, refer to Appendix D (Industrial Waste Acceptance Quality Assurance/Quality Control Plan) submitted with Modification No. 1-07.

In summary, any mitigating measures that have been considered that would offer more protection to the environment without unduly curtailing non-environmental benefits have been incorporated into the design and operations plan for the facility. These mitigating measures include many design components and innovative techniques that are not required by the applicable regulations.

o o o

The following exhibits complete this document:

Exhibits

Exhibit 19	Proof of Publication of Public Notice
Exhibit 20	Lease Agreement and Buffer Zone Waiver Affidavit
Exhibit 21	Excerpts from Solid Waste Management Study
Exhibit 22	St. Mary Parish Solid Waste Ordinances
Exhibit 23	Airspace and Borrow Soil Adequacy Volume Calculations and GS-GCL & GCL Equivalency Calculations
Exhibit 24	Emergency Response Certification Letters
Exhibit 25	St. Mary Parish Solid Waste Resolution
Exhibit 26	LDOTD and St. Mary Parish Letter of Approbation (Roads)
Exhibit 27	Example of Document to be Filed with Parish Upon Closure
Exhibit 28	Alternative Site Evaluation Map
Exhibit 29	USACE Wetlands Demonstrations (1976 & 1998) & Wetlands Jurisdictional Determination (2001)
Exhibit 30	USACE Wetlands Permit
Exhibit 31	LDWF Letter of Approbation
Exhibit 32	LDCRT Letter of Approbation
Exhibit 33	LDNR Coastal Use Permit Exemption
Exhibit 34	Flood Zone Map
Exhibit 35	Aquifer Recharge Area Map
Exhibit 36	LRRDA Letter of Approbation

PART III EXHIBITS

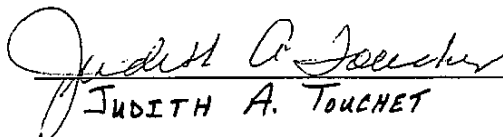
Exhibit 19
Proof of Publication of Public Notice

STATE OF LOUISIANA
PARISH OF ST. MARY

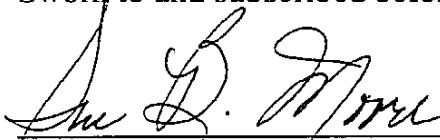
BEFORE ME, the undersigned Notary Public, duly commissioned in and for the Parish and State aforesaid; personally came and appeared, Judith A. Touchet who after being duly sworn, depose and said;

That she is Classified Advertising Manager for the Franklin Banner-Tribune, the Official Journal for the Parish of St. Mary, and a daily newspaper published at Franklin, Louisiana, and having general circulation in the Parish of St. Mary.

That the attached is a true and correct copy of a legal advertisement which appeared in the May 7, 2007 issue of The Franklin Banner-Tribune


JUDITH A. TOUCHET

Sworn to and subscribed before me this 10th day of MAY, 2007


NOTARY PUBLIC
SUE B. MOORE, #33421



**PUBLIC NOTICE
LOUISIANA
DEPARTMENT OF
ENVIRONMENTAL
QUALITY (LDEQ) St.
Mary Parish
Government Harold J.
"Babe" Landry Landfill
ADMINISTRATIVE
COMPLETENESS
DETERMINATION**

The LDEQ, Office of Environmental Services, has reviewed a solid waste permit application from St. Mary Parish Government, Fifth Floor - Courthouse, Franklin, LA 70538-6198 for the Harold J. "Babe" Landry Landfill and determined that it is administratively complete. The application was received on April 12, 2007. The facility is located at 124 Landfill Lane off Thorguson Road near Berwick, St. Mary Parish.

St. Mary Parish Government - Harold J. "Babe" Landry Landfill proposes to apply for a modification to their permit.

Inquiries or requests for additional information regarding this application should be directed to Shawn Miller, LDEQ, Environmental Assistance Division, and P. O. Box 4313, Baton Rouge, LA 70821-4313 or at 225-219-3286.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at maillistrequest@ldeq.org or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices can be viewed at the LDEQ permits public notice webpage at <http://www.deq.louisiana.gov/apps/pubNotice/default.asp> and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabId/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at <http://www.doa.louisiana.gov/oes/liservpage/ldegjnliserv.htm>.

All correspondence should specify AI Number 9340, Permit Number P-0193R1, and Activity Number PER20070001

May 2, 2007

Exhibit 20

Lease Agreement and Buffer Zone Waiver Affidavit

St. Mary Parish Recording Page

Cliff Dressel
Clerk of Court
P.O. Box 1231
500 Main Street
Franklin, LA 70538
(337) 828-4100

Received From :

ST. MARY PARISH GOVERNMENT
COURTHOUSE BLDG., 500 MAIN ST.
FRANKLIN, LA 70538

First VENDOR

EMERALD LAND CORPORATION

First VENDEE

ST MARY PARISH GOVERNMENT

Index Type : Conveyances

File Number : 286717

Type of Document : Resolution

Book : 65 Page : 551

Recording Pages : 2

Recorded Information

I hereby certify that the ~~document~~ document was filed for registry and recorded in the Clerk of Court's office for St. Mary Parish, Louisiana

Rita B. McFarlane
Deputy Clerk

On (Recorded Date) : 08/24/2004

At (Recorded Time) : 3:19:19 PM



Doc ID - 000321570002



Return To :

CORPORATE RESOLUTION

I, M. Taylor Darden, Corporate Secretary of Emerald Land Corporation, a Louisiana corporation domiciled in St. Mary Parish Louisiana ("Company"), hereby certifies that the following resolution was duly adopted by the Board of Directors of said Company at a meeting held on the 22nd day of March 2004 at which meeting all of the directors of the corporation were present, and that the same remains in full force and effect:

That Michael A. Fogarty, the President of the Company, or M. Taylor Darden, the Corporate Secretary of the Company, or either of them, is authorized and empowered to act on behalf of the Company with respect to execution of that certain Second Amendment to Solid Waste Disposal and Landfill Lease, dated effective April 1, 2004, by and between Emerald Land Corporation, as Lessor, and St. Mary Parish Government, as Lessee, for such price and upon such terms and conditions as either he, in his sole discretion, shall deem necessary and proper and in the best interests of the Company.

Executed on this 9th day of July 2004.



M. Taylor Darden, Corporate Secretary

St. Mary Parish Recording Page

Cliff Dressel
Clerk of Court
P.O. Box 1231
500 Main Street
Franklin, LA 70538
(337) 828-4100

Received From :

ST. MARY PARISH GOVERNMENT
COURTHOUSE BLDG., 500 MAIN ST.
FRANKLIN, LA 70538

First VENDOR

EMERALD LAND CORPORATION

First VENDEE

ST MARY PARISH GOVERNMENT

Index Type : Conveyances

File Number : 286504

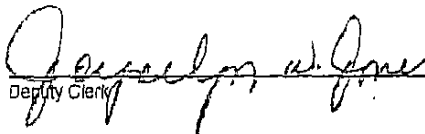
Type of Document : Amendment

Book : 64 Page : 351

Recording Pages : 21

Recorded Information

I hereby certify that the ~~original~~ document was filed for registry and recorded in the Clerk of Court's office for St. Mary Parish, Louisiana


Deputy Clerk

On (Recorded Date) : 07/30/2004

At (Recorded Time) : 10:56:48 AM



Doc ID - 000285180021



Return To :